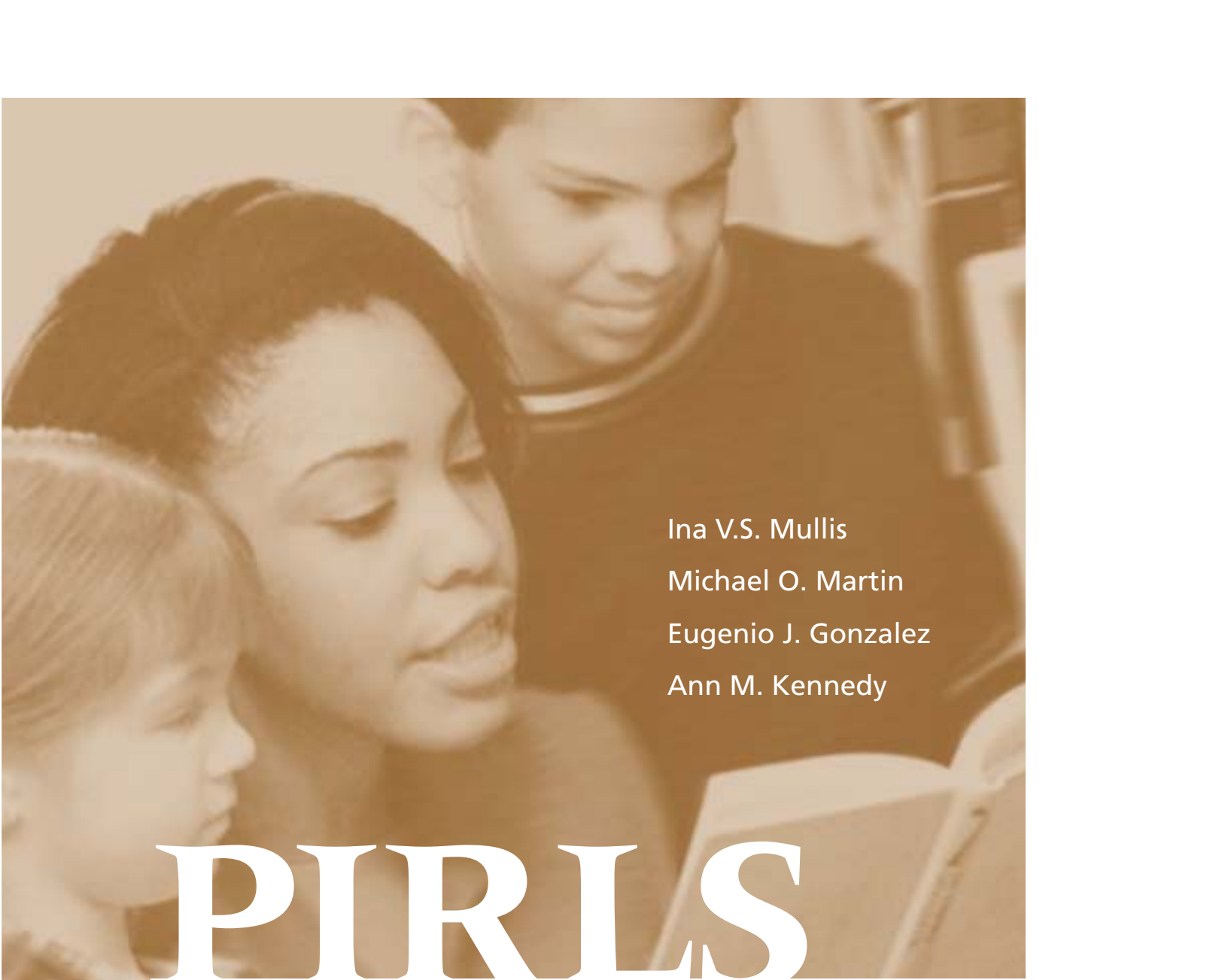


PIRLS

PIRLS 2001 International Report

IEA's Study of Reading Literacy Achievement in Primary School in 35 Countries



Ina V.S. Mullis
Michael O. Martin
Eugenio J. Gonzalez
Ann M. Kennedy

PIRLS

PIRLS 2001 International Report

IEA's Study of Reading Literacy Achievement in Primary School in 35 Countries



International Association
for the Evaluation of
Educational Achievement



International
Study Center

© 2003 International Association
for the Evaluation of Educational
Achievement (IEA)

PIRLS 2001 International Report / by Ina
V.S. Mullis, Michael O. Martin, Eugene J.
Gonzalez, and Ann M. Kennedy.

Publisher: International Study Center,
Lynch School of Education, Boston College

Library of Congress
Catalog Card Number: 2003103114

ISBN: 1-889938-28-9

For more information about PIRLS contact:

PIRLS International Study Center
Lynch School of Education
Manresa House
Boston College
Chestnut Hill, MA 02467
United States

tel: +1-617-552-1600
fax: +1-617-552-1203

e-mail: pirls@bc.edu

<http://pirls.bc.edu>

Boston College is an equal opportunity,
affirmative action employer.

Printed and bound in the United States.

[Contents]

3 Executive Summary

15 Introduction

17 Which Countries Participated?

18 Map of Countries Participating in PIRLS 2001

20 The PIRLS 2001 Encyclopedia

20 Quality Control

21 Funding

23 Chapter 1

International Student Achievement in Reading

24 How Do Countries Differ in Reading Achievement?

26 Exhibit 1.1 Distribution of Reading Achievement

27 Exhibit 1.2 Multiple Comparisons of Average Reading Achievement

28 What Are the Gender Differences in Reading Literacy Achievement?

30 Exhibit 1.3 Average Reading Achievement by Gender

31 Exhibit 1.4 Percentages of Girls and Boys Reaching Quartiles of Reading Achievement in Each Country

33 Chapter 2

Achievement in Reading for Literary Experience and Reading To Acquire and Use Information

35 How Does Achievement Differ Across Reading Literacy Purposes?

36 Exhibit 2.1 Distribution of Reading Achievement for Literary Purposes

37 Exhibit 2.2 Multiple Comparisons of Average Reading Achievement for Literary Purposes

38 Exhibit 2.3 Distribution of Reading Achievement for Informational Purposes

39 Exhibit 2.4 Multiple Comparisons of Average Reading Achievement for Informational Purposes

41 In Which Reading Purposes Are Countries Relatively Strong or Weak?

41 What Are the Gender Differences in Achievement for the Content Areas?

42 Exhibit 2.5 Relative Difference in Performance Between Literary and Informational Purposes

43 Exhibit 2.6 Reading for Literary and Informational Purposes by Gender



[Contents]



45 Chapter 3

Performance at International Benchmarks

- 47 How Do Countries Compare with International Benchmarks of Performance Reading Achievement?
 - 48 Exhibit 3.1
Percentages of Students Reaching PIRLS International Benchmarks in Reading Achievement
- 49 What Was the Nature of the PIRLS Reading Test?
- 51 How Were the Benchmark Descriptions Developed?
- 52 How Should the Benchmark Descriptions Be Interpreted?
- 54 Achievement at the Lower Quarter Benchmark
 - 57 Exhibit 3.2
Description of Lower Quarter PIRLS International Benchmark of Reading Achievement
 - 58 Exhibit 3.3–3.8
Lower Quarter PIRLS International Benchmark Example Items
- 64 Achievement at the Median Benchmark
 - 66 Exhibit 3.9:
Description of Median PIRLS International Benchmark of Reading Achievement
 - 67 Exhibit 3.10–3.15
Median PIRLS International Benchmark Example Items
- 73 Achievement at the Upper Quarter Benchmark
 - 75 Exhibit 3.16
Description of Upper Quarter PIRLS International Benchmark of Reading Achievement
 - 76 Exhibit 3.17–3.22
Upper Quarter PIRLS International Benchmark Example Items
- 82 Achievement at the Top 10% Benchmark
 - 84 Exhibit 3.23
Description of Top 10% PIRLS International Benchmark of Reading Achievement
 - 85 Exhibit 3.24–29
Top 10% PIRLS International Benchmark Example Items

94 Chapter 4

Literacy-Related Activities in the Home

- 95 What Activities Fostering Literacy Did Parents Engage in with Their Child?
 - 97 Exhibit 4.1
Index of Early Home Literacy Activities (EHLA)
 - 98 Exhibit 4.2
Parents Read Books with Their Children Before the Children Began Primary School
- 99 What Language Do Students Speak at Home?
 - 100 Exhibit 4.3
Parents Did Early Reading Activities on the Computer with Their Children
 - 101 Exhibit 4.4
Students Speak Language of the Test at Home
 - 103 Exhibit 4.5
Students' Parents Born in Country
- 104 What Literacy Resources Do Students Have in Their Homes?
 - 105 Exhibit 4.6
Index of Home Educational Resources (HER)
 - 107 Exhibit 4.7
Parents' Reports of Books in the Home
 - 108 Exhibit 4.8
Students' Reports of Books in the Home
 - 110 Exhibit 4.9
Parents' Reports of Children's Books in the Home
 - 112 Exhibit 4.10
Educational Resources in the Home
 - 114 Exhibit 4.11
Highest Level of Education of Either Parent
 - 115 Exhibit 4.12
Parents' Employment Situations
 - 116 Exhibit 4.13
Fathers' Occupation
 - 118 Exhibit 4.14
Mothers' Occupation
- 120 How Often Do Parents Read?
 - 122 Exhibit 4.15
Parents Read at Home
 - 123 Exhibit 4.16
Parents Read for Enjoyment
 - 124 Exhibit 4.17
Index of Parents' Attitudes Toward Reading (PATR)

127 Chapter 5

School Curriculum and Organization for Teaching Reading

128 How Well-Prepared Are Students to Learn to Read?

- 130 Exhibit 5.1
Number of Years Children Attended Preprimary Education (Preschool, Kindergarten, and Other Similar Programs)
- 131 Exhibit 5.2
Age Students Began Primary School
- 132 Exhibit 5.3
Students in Schools Categorized by Principals' Estimate of the Percentage of Students Beginning School With Early Literacy Skills
- 134 Exhibit 5.4
Students in Schools Where Principals Estimate That Most Students (More than 75%) Begin School with Specific Early Literacy Skill
- 135 Exhibit 5.5
Students Based on Parents' Reports of How Well They Could Do Early Literacy Activities Beginning School

136 How Much Is Reading Emphasized in the School Curriculum?

- 137 Exhibit 5.6
Students Whose Parents Reported They Could Do Specific Early Literacy Activities Beginning School
- 138 Exhibit 5.7
Schools' Grade-by-Grade Emphases on Reading Comprehension Skills or Strategies
- 141 Exhibit 5.8
Teachers Ask Students to Do Classroom Activities at Least Weekly to Develop Reading Comprehension Skills or Strategies
- 142 Exhibit 5.9
Emphasis on Reading Curriculum in the Schools
- 144 Exhibit 5.10
Influence of Various Factors on Schools' Curriculum
- 145 Exhibit 5.11
Instructional Time for Reading (Formal and Integrated)

146 How Much Instructional Time Is Devoted to Reading?

- 147 Exhibit 5.12
Number of Hours Reading is Taught Weekly (Formal and Integrated)
- 148 Exhibit 5.13
Teachers Spend Time for Formal Reading Instruction

149 How Are Classes Organized for Reading Instruction?

- 150 Exhibit 5.14
Frequency of Reading Instruction During the Week
- 151 Exhibit 5.15
Schools' Reading Instructional Programs
- 152 Exhibit 5.16
Teachers' Reports of Their Students' Reading Level
- 154 Exhibit 5.17
Use of Instructional Materials for Students at Different Reading Levels
- 155 Exhibit 5.18
Teachers Teach Reading Across Curriculum Areas or Separately
- 156 Exhibit 5.19
Organization of Students for Reading Instruction

157 How Big Are Classes for Reading and Language Instruction?

- 158 Exhibit 5.20
Class Size for Reading and Language Instruction
- 159 Exhibit 5.21
Average Number of Students in Class Needing Special Instruction

160 How Do Schools Help Students with Reading Difficulties?

- 161 Exhibit 5.22
Availability of Specialists
- 163 Exhibit 5.23
Teachers' Approaches to Dealing with Students Falling Behind in Reading



[Contents]

165 Chapter 6

Teachers and Reading Instruction



- 167 What Preparation Do Teachers Have for Teaching Reading?
- 169 Exhibit 6.1 Teachers' Gender, Age, and Average Number of Years Teaching
 - 170 Exhibit 6.2 Number of Years Students Typically Stay with the Same Classroom Teacher
 - 171 Exhibit 6.3 Teachers' General or Specialized Teaching Responsibilities
 - 172 Exhibit 6.4 Preparation to Teach Reading
 - 173 Exhibit 6.5 Areas of Emphasis in Teachers' Formal Education and/or Training
- 174 What Instructional Resources Do Teachers Use?
- 177 Exhibit 6.6 Materials Schools Used as a Basis for Their Reading Instructional Programs
 - 178 Exhibit 6.7 Materials Schools Used as a Supplement to Their Reading Instructional Programs
 - 179 Exhibit 6.8 Teachers' Use of Textbooks/Reading Series and Workbooks/Worksheets for Reading Instruction
 - 180 Exhibit 6.9 Teachers' Use of Workbooks or Worksheets
 - 181 Exhibit 6.10 Use of Materials for Reading Instruction Other Than Textbooks or a Reading Series, Workbooks or Worksheets
 - 182 Exhibit 6.11 Teachers' Use of Fiction for Reading Instruction
 - 183 Exhibit 6.12 Types of Fiction Used for Reading Instruction
 - 184 Exhibit 6.13 Use of Nonfiction for Reading Instruction
 - 185 Exhibit 6.14 Use of Films and Other Media for Reading Instruction
- 186 How Often Do Students Read Aloud and Independently in Class?
- 188 Exhibit 6.15 Emphasis on Decoding and Vocabulary
 - 189 Exhibit 6.16 Students' Reports About Teachers Reading Aloud in Class
 - 190 Exhibit 6.17 Students' Reports About Students Reading Aloud in Class
 - 191 Exhibit 6.18 Students' Reports About Independent Reading
 - 192 Exhibit 6.19 Teachers' Reports About Reading Aloud or Silently in Class
- 194 What Activities Do Students Do in Response to Class Reading?
- 196 Exhibit 6.20 Students Answer Questions Aloud About Class Reading
 - 197 Exhibit 6.21 Students Answer Questions in Writing About Class Reading
 - 198 Exhibit 6.22 Students Talk in Class with Peers About Reading
 - 199 Exhibit 6.23 Students Do Projects About Class Reading
 - 200 Exhibit 6.24 Teachers' Reports About Reading Comprehension Activities After Instruction
 - 201 Exhibit 6.25 Students' Reports on Taking a Quiz or Test After Reading
 - 202 Exhibit 6.26 Teachers' Reports on Giving a Written Quiz or Test After Students Read
 - 205 Exhibit 6.27 Access to Libraries in School
 - 206 Exhibit 6.28 Students' Use of Classroom Libraries
 - 207 Exhibit 6.29 Frequency of Students' School Library Visits
 - 208 Exhibit 6.30 Students' Overall Library Use in School

223 Chapter 7

School Contexts

209 How Are Computers Used for Reading Instruction?

- 211 Exhibit 6.31
Computer Availability and Instructional Use
- 212 Exhibit 6.32
Students' Reports on Computer Use

213 What Is the Role of Reading Homework?

- 214 Exhibit 6.33
Students Assigned Reading for Homework
- 215 Exhibit 6.34
Index of Reading for Homework (RFH)

216 How Do Teachers Assess Reading Progress?

- 218 Exhibit 6.35
Emphasis on Sources to Monitor Students' Progress in Reading
- 219 Exhibit 6.36
Use of Portfolios (Collections of Students' Work) to Monitor Students' Progress in Reading
- 220 Exhibit 6.37
Approaches to Assessing Students' Performance in Reading

224 What Are the Schools' Demographic Characteristics?

- 226 Exhibit 7.1
Principals' Reports on Their Schools' Locations
- 227 Exhibit 7.2
Principals' Reports on Their Primary-Grade Students Coming from Economically Disadvantaged Homes
- 228 Exhibit 7.3
Principals' Reports on Their Primary-Grade Students Not Speaking the Language of the Test as Their First Language

229 What Is the Role of the School Principal?

- 230 Exhibit 7.4
Principals' Time Spent on Various School-Related Activities

231 How Often Do Teachers Collaborate or Participate in Workshops or Seminars?

- 232 Exhibit 7.5
Schools' Policies on Teacher Collaboration
- 233 Exhibit 7.6
Teachers Meet to Discuss Instruction
- 234 Exhibit 7.7
Teachers Meet to Plan Reading Curriculum or Teaching Approaches
- 235 Exhibit 7.8
Teachers' Recent Participation in Workshops or Seminars

236 What Is the Level of Home-School Involvement?

- 238 Exhibit 7.9
Index of Home-School Involvement (HSI)
- 239 Exhibit 7.10
Teachers Send Home Examples of Students' Classroom Work in Language
- 240 Exhibit 7.11
Schools Ask Parents to Review Child's Language Progress
- 241 Exhibit 7.12
Parents Discuss Child's Classroom Reading Work with Him or Her



[Contents]



- 242 How Serious Is Absenteeism in Schools?
- 243 Exhibit 7.13
Seriousness of Absenteeism in Schools
- 244 Exhibit 7.14
Index of Principals' Perceptions of School Climate (PPSC)
- 245 How Safe Are Schools?
- 247 Exhibit 7.15
How Much Students Agree with Feeling Safe at School
- 248 Exhibit 7.16
Students Answering "Yes" to Incidents of Stealing, Bullying, and Hitting at School During the Last Month
- 250 Exhibit 7.17
Index of Principals' Perceptions of School Safety (PPSS)
- 251 What School Resources Are Available to Support Reading?
- 253 Exhibit 7.18
Index of Availability of School Resources (ASR)
- 254 Exhibit 7.19
Availability of Computers for Instructional Purposes
- 255 Exhibit 7.20
Schools' Reports on Number of Computers and How Many Have Access to the Internet

257 Chapter 8

Students' Reading Attitudes, Self-Concept, and Out-of-School Activities

- 258 What Are Students' Attitudes Toward Reading?
- 259 What Are Students' Perceptions of Their Reading Ability?
- 261 Exhibit 8.1
Index of Students' Attitudes Toward Reading (SATR)
- 262 Exhibit 8.2
Index of Students' Attitudes Toward Reading (SATR) by Gender
- 263 Exhibit 8.3
Index of Students' Reading Self Concept (SRSC)
- 264 Exhibit 8.4
Index of Students' Reading Self Concept (SRSC) by Gender
- 265 How Often Do Students Engage in Literacy Activities Outside of School?
- 267 How Often Do Students Watch Television or Videos?
- 268 Exhibit 8.5
Students Read for Fun Outside of School
- 269 Exhibit 8.6
Students Read Stories or Novels Outside of School
- 270 Exhibit 8.7
Students Read Stories or Novels Outside of School by Gender
- 271 Exhibit 8.8
Students Read for Information Outside of School
- 272 Exhibit 8.9
Students Read for Information Outside of School by Gender
- 273 Exhibit 8.10
Parents Talk with Their Child About What the Child is Reading
- 274 Exhibit 8.11
Students Talk with Their Families About What the Students are Reading
- 275 Exhibit 8.12
Students Spend Time Watching Television or Videos on a Normal School Day

277 Appendix A

Overview of PIRLS Procedures

277 History

278 Participants in PIRLS

278 Developing the PIRLS Tests

- 279 Exhibit A.1
Countries Participating in PIRLS 2001 and
the Trends in IEA's Reading Literacy Study
- 282 Exhibit A.2
Aspects of Reading Literacy
- 283 Exhibit A.3
Distribution of Items by Reading Purpose and
Process Category

284 PIRLS Test Design

284 Background Questionnaires

285 Translation Verification

286 Sample Implementation and Participation Rates

- 287 Exhibit A.4
Coverage of PIRLS Target Population

288 Data Collection

- 289 Exhibit A.5
School Sample Sizes
- 290 Exhibit A.6
Student Sample Sizes (Unweighted)
- 291 Exhibit A.7
Participation Rates (Weighted)
- 292 Exhibit A.8
Percentage of Students with Any Available
Student, Parent, Teacher,
and Principal Questionnaire Data

293 Scoring the Constructed-Response Items

294 Test Reliability

295 Data Processing

295 IRT Scaling and Data Analysis

- 296 Exhibit A.9
PIRLS Within-Country Constructed-Response
Scoring Reliability Data
- 297 Exhibit A.10
PIRLS Cross-Country Constructed-Response
Scoring Reliability
- 298 Exhibit A.11
Cronbach's Alpha Reliability Coefficient –
PIRLS 2001

- 300 Exhibit A.12
Correlation Between Reading for Literary
Purposes and Reading for Informational
Purposes

301 Estimating Sampling Error

301 Setting International Benchmarks of Student Achievement

305 Appendix B

Percentiles and Standard Deviations of Reading Achievement

- 306 Exhibit B.1
Percentiles of Achievement in Reading
- 307 Exhibit B.2
Standard Deviations of Achievement
in Reading
- 308 Exhibit B.3
Percentiles of Achievement
in Literary Reading
- 309 Exhibit B.4
Standard Deviations of Achievement
in Literary Reading
- 310 Exhibit B.5
Percentiles of Achievement
in Informational Reading
- 311 Exhibit B.6
Standard Deviations of Achievement
in Informational Reading

313 Appendix C

Sample Passages, Questions, and Scoring Guides

357 Appendix D

Reading Items Used for Describing Each Benchmark

365 Appendix E

Sweden - Grade 3 Reading Achievement

- 366 Exhibit E.1
Sweden – Selected Reading
Achievement Results

369 Appendix F

Acknowledgements





Executive Summary

Since its inception in 1959, the International Association for the Evaluation of Educational Achievement (IEA) has conducted a series of internationally comparative studies designed to provide policy makers, educators, researchers, and practitioners with information about educational achievement and learning contexts. The Progress in International Reading Literacy Study (PIRLS) is IEA's newly-developed assessment of students' reading achievement at fourth grade. Thirty-five countries participated in PIRLS 2001. Its success depended on a collaborative effort among the research centers in each country responsible for implementing the steps of the project and the network of international centers responsible for managing the across-country tasks, such as training country representatives in standardized procedures, selecting comparable samples of schools and students, developing instruments, and conducting the various steps required for data processing and analysis.


PIRLS assessed a range of reading comprehension strategies for two major reading purposes – literary and informational. More than half of the questions were in the constructed-response format, requiring students to generate and write their answers. Example passages, questions, and scoring guides can be found in the back pocket of the report and in Appendix C.

Because the home, school, and national context within which students learn to read play such important roles, PIRLS collected extensive information about these influences. The students who participated in PIRLS completed questionnaires about their home and school experiences related to learning to read. Of special interest, their parents and caregivers completed questionnaires about activities used to foster early literacy activities. Also, teachers and school administrators completed questionnaires about instructional practices. System level information was provided by each participating country and published in the PIRLS 2001 Encyclopedia.

All aspects of PIRLS were conducted with concerted attention to quality. Countries met rigorous standards for sampling designed to prevent bias and ensure comparability. Translating the tests and questionnaires involved a detailed iterative review process, and numerous training sessions were held in data-collection and scoring procedures. Prior to analysis, each country's data were subjected to exhaustive checks for consistency and comparability across countries.

Students' Reading Achievement

- Sweden had the highest reading literacy achievement of all the countries participating in PIRLS 2001. The Netherlands, England, and Bulgaria were outperformed only by Sweden. Latvia, Canada, Lithuania, Hungary, the United States, Germany, and Italy also performed better than most of the other countries.
- In all countries, fourth-grade girls had significantly higher reading achievement than boys.
- Sweden and England had the highest average achievement in reading for literary purposes, with Sweden having significantly higher mean achievement than the rest of the other participating countries and England performing significantly better than all the other countries except The Netherlands, the United States, and Bulgaria. Only Sweden outperformed The Netherlands, the United States, and Bulgaria.




In all countries,
fourth-grade girls
had significantly
higher reading
achievement
than boys.

- In reading for informational purposes, Sweden, The Netherlands, and Bulgaria had the highest average achievement. Sweden had significantly higher achievement than the rest of the countries and The Netherlands and Bulgaria performed significantly better than all the other countries except Latvia and England, who were outperformed only by Sweden.

Home Activities Fostering Literacy

- In every country, there was a positive relationship between reading achievement at fourth grade and students having engaged in early literacy activities before starting school (e.g., reading books, telling stories, singing songs, playing with alphabet toys, and playing word games). Parents generally reported a fairly high level of engagement, with England and Scotland reporting the highest levels.
- On average across countries, there was a strong relationship between speaking the language of the PIRLS test at home and performance on the PIRLS test.
- In every country, fourth-grade students from homes with many children's books (more than 100) had higher reading achievement than those from homes with few children's books (10 or less). Internationally, on average, the majority of students (58%) were in homes with more than 25 children's books.
- Across countries, on average, students with the highest reading achievement had parents who spent time reading (more than six hours per week) and their parents had favorable attitudes toward reading.



Students with the highest reading achievement had parents who spent time reading.

Curriculum and School Organization

- In most countries, principals reported that less than half (and in many cases less than one-quarter) of students beginning their schools had early literacy skills (i.e., recognize most of the alphabet, read some words, read sentences, write letters of the alphabet, and write some words). Exceptions were England, Singapore, Slovenia, Canada, France, Sweden, and the United States.
- More than half the students (54%), on average, across countries had parents that reported their child could do early literacy activities (see above) moderately or very well at the time they began school, and only 17 percent had parents reporting they could not do them at all.
- According to principals across the countries, reading was emphasized more than other areas of the curriculum in grades one through four. Almost four-fifths (78%) of students, on average, were in schools where reading received more emphasis than other areas of the curriculum.
- Teachers reported spending as much as nine hours per week, on average, on language instruction in Canada, Colombia, Cyprus, France, Greece, New Zealand, and the United States, and as little as three hours in Macedonia; the average across all countries was seven hours. On average, across countries, 28 percent of fourth-grade students had teachers reporting more than six hours each week specifically on reading instruction.
- Teaching reading as a whole-class activity was the most popular approach internationally, with 38 percent of students, on average, in classes where the teacher always or almost always chose this method.
- Internationally, on average, about half the students (56%) were in classrooms where all students were reading the same materials but at their own speeds, and another one-third (32%) were reading different materials according to their reading level. The remainder were reading the same materials at the same speed, often because they had the same reading level.

- On average, across countries, teachers reported that the most commonly used classroom activities were asking students to identify the main idea and explain or support their understanding of what they had read (used at least weekly with 90% of students).
- Almost two-thirds (63%) of fourth-grade students internationally, on average, were in classes where the teacher reported never having access to a remedial or reading specialist. Twelve percent were in classes where the teacher reported having a remedial or reading specialist always available to deal with students with reading difficulties and 25 percent in classes where such specialists were sometimes available.
- When asked what they usually do when a student begins to fall behind in reading, in almost every country, teachers' most common response was to spend more time working on reading with that student (internationally, for 88% of students on average).

Reading Instruction

- On average, internationally, two-thirds of 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. Workbooks were used on a daily basis for about one-third of students (32%) and on a weekly basis for nearly half the students (46%).
- Across countries, the 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. Three-fourths of students (international average 76%) were given at least two of the following on a monthly basis to supplement their weekly instructional program – children's books, newspapers/magazines, computerized activities, or Internet assignments.

- On average, internationally, using fiction in classrooms is much more widespread than using non-fiction. Teachers reported using fiction for reading instruction at least weekly for 84 percent of students compared to non-fiction for 56 percent of students.
- Both teachers and students agreed that independent silent reading was a frequent classroom activity, particularly for students with higher reading achievement. On average, internationally, two-thirds of fourth-grade students (66%) reported reading silently on their own daily, and a further 27 percent at least weekly.
- Across countries, on average, teachers reported asking the majority of fourth-grade students to read aloud to the whole class on a daily basis (56%), as well as assigning some reading aloud in small groups or pairs. Students reported reading aloud themselves somewhat less frequently – about one-fourth (23%) daily and one-third (36%) weekly. Interestingly, students with the highest reading achievement reported frequent independent reading (daily) and less frequent reading aloud (monthly). Presumably, teachers were able to allow the better readers more time on their own.
- In many countries, oral questioning by the teacher was an everyday activity and in all countries it happened with the majority of fourth-grade students at least weekly. Students also reported frequently answering questions in writing about what they had read in class.
- Almost all fourth-grade students (international average 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. On average, internationally, 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.
- Despite the widespread availability of classroom libraries, teachers reported using them relatively infrequently. On average, across countries, the majority of fourth-grade students (62%) were given time to use the classroom library only weekly or less often.

- Computer availability for reading instruction varied dramatically from country to country. Whereas almost all students (more than 90%) in Canada, 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%) had no access to computers in Belize, Bulgaria, Colombia, Greece, Iran, Kuwait, Macedonia, Moldova, the Russian Federation, the Slovak Republic, and Turkey.
- Internationally, 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.

School Contexts

- On average, internationally, average reading achievement was considerably higher – 40 scale-score points – for students in schools with few students from disadvantaged homes (less than 10%) than with the majority from disadvantaged homes. According to principals, one-third of the students attended schools with relatively few disadvantaged students but one-fourth (23%) were in schools where more than 50 percent of the students came from economically disadvantaged homes.
- At least half of the fourth-grade students in Canada, France, Hong Kong, Iceland, Iran, Israel, Kuwait, The Netherlands, New Zealand, Singapore, and the United States, were in schools emphasizing communication with parents.
- Absenteeism does not appear to be prevalent among fourth graders. On average, internationally, almost 80 percent of students attended schools where principals reported absenteeism was not a problem or only a minor one.

- Internationally, on average, about one-third of students (36%) attended schools perceived by principals to have high morale, high academic expectations, regard for school property, and a high level of parental support, and these students had higher reading achievement than those in less positive school climates.
- Across countries, on average, 43 percent of students attended schools reporting adequate availability of resources, and only 18 percent were in schools affected by the lack of availability. Students in schools reporting no shortage or inadequacy of resources generally had higher reading achievement than those affected “a lot” by shortages.

Students’ Attitudes and Reading Habits

- Within all countries, students’ attitudes toward reading were generally positive, and students with the most positive attitudes had the highest reading achievement. Internationally, about half the students, on average, agreed with each of five statements about enjoying reading and appreciating books. More girls than boys had positive attitudes in all countries.
- On average, internationally, 63 percent of fourth-grade students reported reading stories or novels at least once a week. More girls (70%) than boys (55%) so reported. Similarly, 61 percent internationally, on average, reported reading for information at least weekly. However, comparable percentages of girls (62%) and boys (59%) read weekly for information.



Introduction

PIRLS 2001

International Report

Since a literate population provides the foundation for any nation's social and economic health and the ability to read is essential for the personal growth of its citizens, it is crucial to have easily accessible information about students' achievement in reading. The Progress in International Reading Literacy Study (PIRLS) provides a vehicle for countries to obtain internationally comparative data about the reading achievement of their primary school students (the fourth grade in most participating countries).

PIRLS has been designed to assess changes into the future.

PIRLS is the first in a continuing five-year cycle of trend studies in monitoring reading progress internationally, and has been designed at the outset to assess changes into the future.

Conducted under the auspices of IEA, the International Association for the Evaluation of Education, PIRLS data collection took place in 2001 in

35 countries around the world. To provide a blueprint for IEA's continuing work in assessing reading literacy, the PIRLS assessment was based on a collaborative effort of the participating countries. The goal was to conduct the most innovative and comprehensive measure of reading achievement possible within the constraints of a large-

scale international data collection. As such, PIRLS is based on a newly developed framework, describing the interaction between two major reading purposes (literary and informative) and a range of four comprehension processes.¹ The assessment itself was based on a variety of texts, and included a special PIRLS Reader printed in color (see back pocket of report), as well as a significant proportion of questions asking students to write out their answers.

The IEA is an independent international cooperative of national research institutions and governmental agencies with a permanent secretariat based in Amsterdam, The Netherlands. Its primary purpose is to conduct large-scale comparative studies of educational achievement to gain a deeper understanding of the effects of policies and practices within and across systems of education. During its nearly 50-year history of educational research, IEA assessed reading most recently in 1990-91.² In fact, the PIRLS data collection coincided with the 10th anniversary of IEA's 1991 Reading Literacy Study, providing participants in the 1991 study the additional opportunity to replicate that study and obtain a 10-year measure of the trends from 1991. Nine countries took advantage of that opportunity, and the results are reported in *Trends in Children's Reading Literacy Achievement 1991-2001*.³

Consistent with IEA's primary purpose of providing policy and instructionally relevant information, PIRLS included a full range of context questionnaires. Most notably, since the home environment plays such an

1 Campbell, J.R., Kelly, D.L., Mullis, I.V.S., Martin, M.O., & Sainsbury, M. (2001). *Framework and specifications for PIRLS assessment 2001* (2nd ed.). Chestnut Hill, MA: Boston College.

2 Elley, W.B. (Ed.). (1994). *The IEA study of reading literacy: Achievement and instruction in thirty-two school systems*. Oxford, England: Elsevier Science Ltd.

3 Martin, M.O., Mullis, I.V.S., Gonzalez, E.J., & Kennedy, A.M. (2003). *Trends in children's reading literacy achievement 1991-2001: IEA's repeat in nine countries of the 1991 Reading Literacy Study*. Chestnut Hill, MA: Boston College.

important role in providing children with early language and literacy experiences, parents and caregivers were asked to complete a questionnaire about various aspects of fostering reading development. Additionally, school administrators were asked about their reading curricula, programs, and resources; teachers about their professional development and different types of reading instruction; and the students, themselves, about their reading, in and outside of school. By gathering information about children's experiences in learning to read, together with reading achievement on the PIRLS test, it is possible to identify factors or combinations of factors associated with high levels of reading literacy.

Which Countries Participated?

The map on the next page shows the 35 countries that participated in PIRLS 2001. The decision to participate in any IEA study is made solely by each member country according to its own data needs and resources, and is coordinated through IEA's secretariat in Amsterdam. Each participating country designated a national center to conduct the activities of the study and a National Research Coordinator (NRC) to implement it in accordance with international procedures – a considerable responsibility given the complexity of the data collection and the measurement instruments. The quality of the study depends on the work of the NRCs and their colleagues, and all those involved deserve deep appreciation for their continued commitment to the project. Appendix F contains a list of the PIRLS 2001 National Research Coordinators and advisory committees.

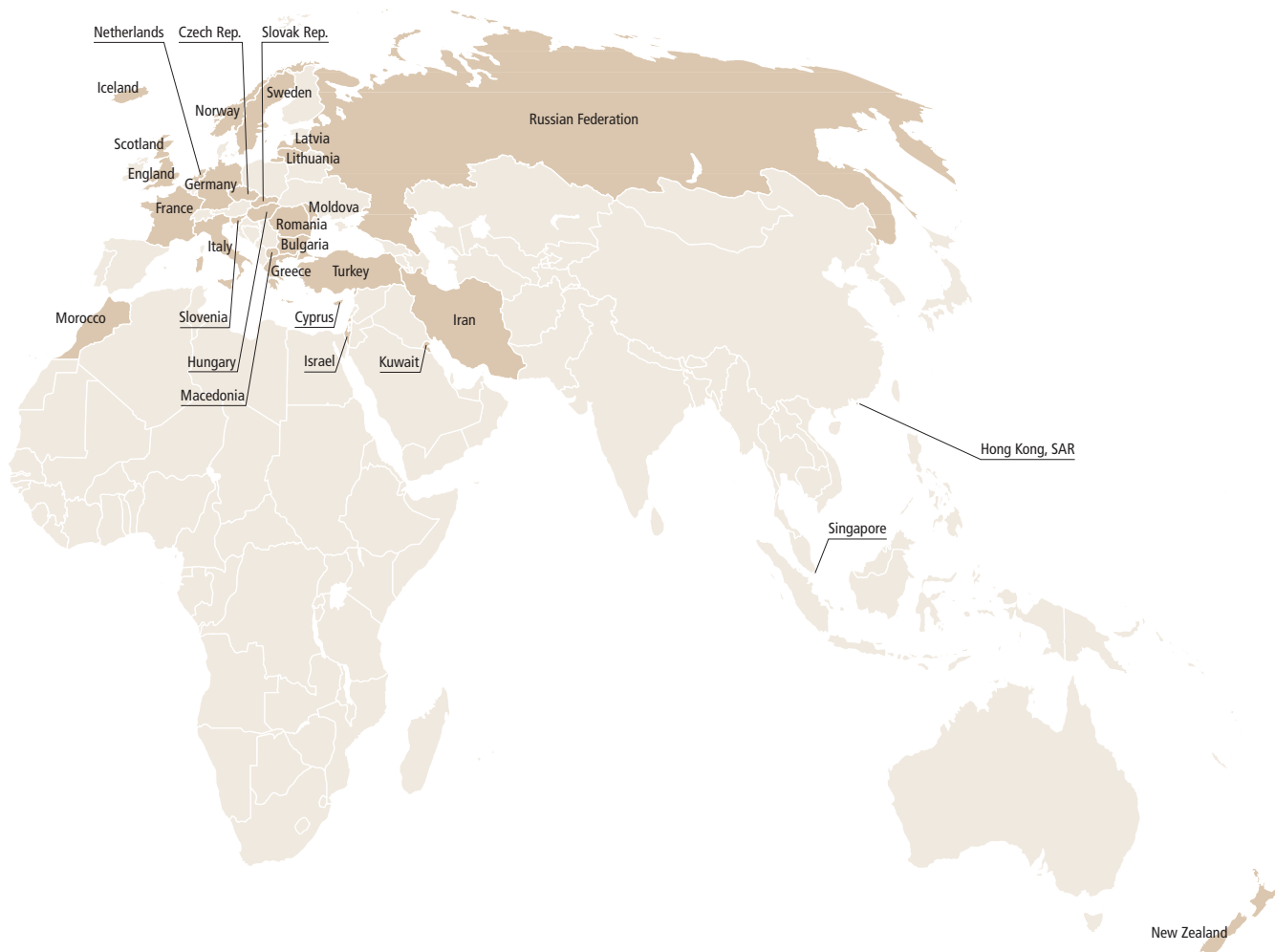
Most, but not all, countries tested students in the fourth year of formal schooling (typically, 10-year-olds). Thus, solely for convenience, the report usually refers to the grade tested as the fourth grade. PIRLS worked very hard to take years of schooling, students' ages, and curriculum covered



Map of Countries Participating in PIRLS 2001

Argentina
Belize
Bulgaria
Canada (O,Q)
Colombia
Cyprus
Czech Republic
England
France
Germany
Greece
Hong Kong, SAR
Hungary
Iceland
Iran, Islamic Rep. of
Israel
Italy
Kuwait
Latvia
Lithuania
Macedonia, Rep. of
Moldova, Rep. of
Morocco
Netherlands
New Zealand
Norway
Romania
Russian Federation
Scotland
Singapore
Slovak Republic
Slovenia
Sweden
Turkey
United States





into consideration to maximize comparability across the grades tested in each country, the effect being that a few students were in the third grade while some were in the fifth grade. Exhibit 1.1 in Chapter 1 contains information for each country about the years of formal schooling and average age of the students tested.

For the sake of comparability across countries, all testing was conducted toward the end of the school year, most often in April through June of 2001, for countries in the Northern Hemisphere. The four countries on a Southern Hemisphere school schedule (Argentina, Colombia, New Zealand, and Singapore) tested in September through December 2001, which was the end of the school year there.

The PIRLS 2001 Encyclopedia

To provide a rich context for interpreting the results, the NRCs for PIRLS 2001 agreed at an early stage of the project to work together to produce a publication to complement the data collected by the study. Entitled the *PIRLS 2001 Encyclopedia*,⁴ the resulting volume provides general information on the cultural, societal, and economic situation in each country, as well as a more focused perspective on the structure and organization of the education system as it pertains specifically to the promotion of reading literacy. The *PIRLS 2001 Encyclopedia* describes primary/elementary schooling as it pertains to reading within each country: including teacher education and training, reading curricula, classroom organization and instruction, and assessment practices. As such, it is an extremely valuable companion publication to this international report, providing insights and detailed information about the policies, practices, and resources within each country.

Quality Control

International studies of student achievement provide valuable comparative information about students' performance in the context of varying curricula and instructional practices. Accompanying the benefits of international studies, though, are the challenges associated with comparing achievement across countries, cultures, and languages. PIRLS made every effort to attend to these

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

issues through careful planning and documentation, cooperation among the participating countries, standardized procedures, and rigorous attention to quality control throughout. For example, an extensive series of verification checks was conducted to ensure the comparability of the test translations, and detailed documentation was required to satisfy adherence to the sampling standards. Appendix A contains an overview of the procedures used. More detailed information is provided in the *PIRLS Technical Report*.⁵

The PIRLS International Study Center at Boston College, directed by Ina V.S. Mullis and Michael O. Martin, was responsible for all aspects of the design, development, and implementation of the study, working closely with the PIRLS advisory committees, the NRCs, and partner organizations responsible for particular aspects of the study. These included the IEA Secretariat, which provided guidance in all aspects of the study and was responsible for verification of all translations produced by participating countries; Statistics Canada, which was responsible for school and student sampling activities; the National Foundation for Educational Research in England and Wales, which had major responsibility for developing the reading assessment; the IEA Data Processing Center, responsible for processing and verifying the data from the 35 countries; and Educational Testing Service, which provided software and support for scaling the achievement data.

Funding

A project of this magnitude requires considerable financial support. IEA's major funding partners for PIRLS included the World Bank, the U.S. Department of Education through the National Center for Education Statistics, and those countries that contributed by way of fees.

5 Martin, M.O., Mullis, I.V.S., & Kennedy, A.M. (Eds.). (2003). *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.



Chapter 1

International Student Achievement in Reading

Chapter 1 summarizes reading achievement at the fourth grade for each of the countries that participated in PIRLS 2001. The average and range in performance are presented for participating countries, and gender differences also are provided.

How Do Countries Differ in Reading Achievement?

Exhibit 1.1 presents the distribution of student achievement in reading for the 35 countries that participated in PIRLS 2001. Countries are shown in decreasing order of average (mean) scale score, together with an indication of whether the country average is significantly higher or lower than the international average.¹ The international average of 500 is the mean of the average scale scores of each of the participating countries. Beginning with top-performing Sweden, it can be seen that 23 countries had average reading literacy achievement that was significantly above the international average. Two countries, Slovenia and Norway, had reading literacy achievement about at the international average, and the remaining 10 countries had average achievement below the international average.

PIRLS devoted considerable effort to maximizing comparability across the grades and ages tested, but it is difficult given that students start formal schooling at different ages.² Exhibit 1.1 shows that the grade tested in most countries represented the fourth year of formal schooling. Thus, solely for

convenience, the report usually refers to the grade tested as the fourth grade. Students in Slovenia, in particular, had one year less of formal schooling than students in the other participating countries, and also some students in the Russian Federation were in their third year of formal schooling. Although at the younger end of the age distribution, students in England, New Zealand, and Scotland were in their fifth year of schooling. On average, students in most countries were 10 years old (aged from 10.0 to 10.9 years). Students in some countries were slightly younger (from 9.7 to 9.9 years), including Italy, Scotland, Greece, Iceland, Slovenia, Cyprus, Kuwait, and Belize; in several others students were slightly older (from 11.0 to 11.2 years old), including Latvia, Romania, and Morocco.

PIRLS found substantial differences in performance across and within countries. As graphically represented in Exhibit 1.1, performance generally differed very little between one country



- 1 PIRLS used item response theory (IRT) methods to summarize the achievement results on a scale with a mean of 500 (international average) and a standard deviation of 100. Given the matrix-sampling approach, scaling averages students' responses in a way that accounts for differences in the difficulty of different subsets of items. It allows students' performance to be summarized on a common metric even though individual students responded to different items in the reading test. For more detailed information, see the "IRT Scaling and Data Analysis" section of Appendix A.
- 2 For a description of educational systems and reading literacy curricula in the PIRLS countries, see Mullis, I.V.S., Martin, M.O., Kennedy, A.M., & Flaherty, C.L. (Eds.). (2002). *PIRLS 2001 encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS)*. Chestnut Hill, MA: Boston College.

and the next higher- or lower-performing country, but the range in performance across the 35 countries was very large. Across countries, achievement in reading literacy ranged from an average of 561 for Sweden to 327 for Belize. The dark boxes at the midpoints of the distributions show the 95 percent confidence intervals around the average achievement in each country.³

Achievement for each country is shown for the 25th and 75th percentiles as well as for the 5th and 95th percentiles.⁴ Each percentile point indicates the percentages of students performing below and above that point on the scale. For example, 25 percent of the fourth-grade students in each country performed below the 25th percentile for that country, and 75 percent performed above the 25th percentile. The range between the 25th and 75th percentiles represents performance by the middle half of the students. In most countries, the range of performance for the middle group was around 100 scale-score points. In contrast, performance at the 5th and 95th percentiles represents the extremes in both lower and higher achievement. The range of performance between these two score points, which includes 90 percent of the population, was 200 to 300 points in most countries – approximately the same as the difference in average performance across countries.

Exhibit 1.2 compares overall mean achievement among individual countries. This figure shows whether or not the differences in average achievement between pairs of countries are statistically significant. Selecting a country of interest and reading across the table, a triangle pointing up indicates significantly higher performance than the comparison country listed across the top; absence of a symbol indicates no significant difference in performance; and a triangle pointing down indicates significantly lower performance.

The data in Exhibit 1.2 further illustrate that, when ordered by average achievement, adjacent countries often did not significantly differ from each other, although the differences in achievement between the high-performing and low-performing countries were very large. Because of this wide range in perform-

PIRLS found substantial differences in performance across and within countries.

3 See the “IRT Scaling and Data Analysis” section of Appendix A for more details about calculating standard errors and confidence intervals for the PIRLS statistics.

4 Tables of the percentile values and standard deviations for all countries are presented in Appendix B.

Exhibit 1.1: Distribution of Reading Achievement**ISC** 4th Grade
PIRLS 2001

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

- * Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.
- † Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).
- ‡ Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).
- 1 National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

2a National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

2b National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 1.2: Multiple Comparisons of Average Reading Achievement

ISC
4th Grade
PIRLS 2001

Instructions: Read across the row for a country to compare performance with the countries listed along the top of the chart. The symbols indicate whether the average achievement of the country in the row is significantly lower than that of the comparison country, significantly higher than that of the comparison country, or if there is no statistically significant difference between the average achievement of the two countries.

| | | Sweden | Netherlands | England | Bulgaria | Latvia | Canada (O,Q) | Lithuania | Hungary | United States | Italy | Germany | Czech Republic | New Zealand | Scotland | Singapore | Russian Federation | Hong Kong, SAR | France | Greece | Slovak Republic | Iceland | Romania | Israel | Slovenia | Norway | Cyprus | Moldova, Rep. of | Turkey | Macedonia, Rep. of | Colombia | Argentina | Iran, Islamic Rep. of | Kuwait | Morocco | Belize | | |
|---|-----------------------|--------|-------------|---------|----------|--------|--------------|-----------|---------|---------------|-------|---------|----------------|-------------|----------|-----------|--------------------|----------------|--------|--------|-----------------|---------|---------|--------|----------|--------|--------|------------------|--------|--------------------|----------|-----------|-----------------------|--------|---------|--------|---|---|
| | Sweden | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Netherlands | ▼ | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | England | ▼ | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Bulgaria | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Latvia | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| * | Canada (O,Q) | ▼ | ▼ | ▼ | | | | | | | | | ● | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Lithuania | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Hungary | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | United States | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Italy | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Germany | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Czech Republic | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | | | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | New Zealand | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Scotland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Singapore | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Russian Federation | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Hong Kong, SAR | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | France | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Greece | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Slovak Republic | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | | | | | | | ● | | | | | | | | | | | | | |
| | Iceland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | |
| | Romania | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | | | | | ● | | | | | | | | | | | | |
| | Israel | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | | | | ● | ● | | | | | | | | | | | |
| | Slovenia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | ● | | | | | | | | | | |
| | Norway | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | |
| | Cyprus | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | |
| | Moldova, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | |
| | Turkey | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | ● | ● | ● | ● | ● | ● |
| | Macedonia, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | ● | ● | ● | ● | ● | ● | |
| | Colombia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | |
| | Argentina | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | |
| | Iran, Islamic Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | | | | | | | | | | | | |

● Average achievement significantly higher than comparison country

▼ Average achievement significantly lower than comparison country

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

ance, the pattern for a number of countries was one of having lower mean achievement than some countries, about the same mean achievement as other countries, and higher mean achievement than a third group of countries.

Sweden had the highest reading literacy achievement of all the countries participating in PIRLS 2001.

Sweden had the highest reading literacy achievement of all the countries participating in PIRLS 2001. The Netherlands and England had higher achievement than the rest of the other countries except Bulgaria. Bulgaria was outperformed only by Sweden and had higher average achievement than many participating countries. Latvia, Canada (O,Q), Lithuania, Hungary, and the United States also performed well. They had significantly lower average performance than Sweden, The

Netherlands, and England, but performance as high or higher than the remaining participants. Italy and Germany also had high average achievement having been outperformed only by four countries – Bulgaria in addition to the three top performers. The Czech Republic was outperformed by seven countries, but had significantly higher achievement than 20 countries. As a next group, New Zealand, Scotland, Singapore, the Russian Federation, Hong Kong, France, and Greece all performed very similarly, generally having average achievement lower than about 10 countries, the same as about 10 countries, and higher than about 15 countries. For the remaining countries, there was a pattern of each, in turn, having significantly lower achievement than one or two more countries.

What Are the Gender Differences in Reading Literacy Achievement?

Exhibit 1.3 shows gender differences in fourth-grade students' reading achievement for each of the participating countries, presenting average achievement separately for girls and boys as well as the difference between the means. Countries are shown in increasing order of this gender difference. The gender difference for each country is shown by a bar, indicating the amount of the difference, whether the direction of the difference favored girls or boys, and whether the difference is statistically significant (indicated by the bar being

darkened). In all countries, girls had significantly higher achievement than boys. Italy had an 8-point difference and all other countries had differences of 11 points or more. The international average was 20 points. Countries with a difference of 25 points or more included Moldova (25 points), New Zealand, Iran, and Belize (27 points), and Kuwait (48 points).

Exhibit 1.4 provides information on gender differences in reading achievement among students with high performance compared to those in the middle of the achievement distribution. For each country, score levels were computed for the highest-scoring 25 percent of students, called the upper quartile; for the top-scoring 50 percent of students, called the median (or top half) level; and for the top-scoring 75 percent, comprising students reaching the lower quartile and higher. The percentages of girls and boys in each country reaching each of the three levels were computed. For equitable performance, 25 percent each of girls and boys should have reached the upper quartile, 50 percent each the median level, and 75 percent each the lower quartile.

On average, across countries, significantly more girls than boys reached each quartile of their country's achievement distribution. More specifically, 29 percent of girls compared with 21 percent of boys reached the upper quartile, 55 percent compared with 45 percent reached the median level, and 79 percent compared with 71 percent reached the lower quartile. By subtraction, it can be determined that fewer boys (8 percent, on average) than girls reach the lowest quartile of achievement, and that 29 percent of boys are below the lowest quartile compared to 21 percent of girls. Statistically significant gender differences favoring girls at each quartile were consistent across countries, with only a few exceptions (Italy and the United States at the upper quartile, France at the median level, and Colombia and Morocco at the lower quartile).



Exhibit 1.3: Average Reading Achievement by Gender**ISC** 4th Grade
PIRLS 2001

| Countries | Girls | | | Boys | | Achievement Difference |
|--|----------|---------------------|---|----------|---------------------|------------------------|
| | Percent | Average Scale Score | | Percent | Average Scale Score | |
| Italy | 48 (0.9) | 545 (2.6) | ● | 52 (0.9) | 537 (2.7) | 8 (2.5) |
| France | 48 (0.9) | 531 (2.7) | ● | 52 (0.9) | 520 (3.0) | 11 (3.3) |
| Colombia | 50 (1.2) | 428 (5.1) | ● | 50 (1.2) | 416 (4.7) | 12 (4.3) |
| ^{2a} Russian Federation | 49 (0.9) | 534 (4.3) | ● | 51 (0.9) | 522 (4.8) | 12 (2.3) |
| Czech Republic | 49 (1.0) | 543 (2.8) | ● | 51 (1.0) | 531 (2.6) | 12 (2.8) |
| Germany | 50 (0.8) | 545 (2.2) | ● | 50 (0.8) | 533 (2.5) | 13 (2.7) |
| Romania | 51 (1.0) | 519 (4.2) | ● | 49 (1.0) | 504 (5.7) | 14 (3.8) |
| Hungary | 51 (1.0) | 550 (2.4) | ● | 49 (1.0) | 536 (2.5) | 14 (2.1) |
| [†] Netherlands | 50 (0.8) | 562 (2.7) | ● | 50 (0.8) | 547 (2.8) | 15 (2.2) |
| Slovak Republic | 50 (0.9) | 526 (3.0) | ● | 50 (0.9) | 510 (3.3) | 16 (3.0) |
| [†] Lithuania | 51 (1.0) | 552 (3.0) | ● | 49 (1.0) | 535 (2.7) | 17 (2.7) |
| [†] Scotland | 52 (1.0) | 537 (3.9) | ● | 48 (1.0) | 519 (4.2) | 17 (4.0) |
| [*] [†] Canada (O,Q) | 50 (0.7) | 553 (2.6) | ● | 50 (0.7) | 536 (2.6) | 17 (2.1) |
| [†] United States | 51 (0.8) | 551 (3.8) | ● | 49 (0.8) | 533 (4.9) | 18 (4.1) |
| Argentina | 51 (1.1) | 428 (6.2) | ● | 49 (1.1) | 410 (6.5) | 18 (4.7) |
| Hong Kong, SAR | 50 (1.0) | 538 (3.0) | ● | 50 (1.0) | 519 (3.5) | 19 (2.9) |
| Iceland | 50 (0.8) | 522 (1.9) | ● | 50 (0.8) | 503 (1.5) | 19 (2.4) |
| Turkey | 48 (0.9) | 459 (4.0) | ● | 52 (0.9) | 440 (3.7) | 19 (3.1) |
| International Avg. | 50 (0.2) | 510 (0.7) | ● | 50 (0.2) | 490 (0.7) | 20 (0.7) |
| [†] Morocco | 45 (1.3) | 361 (9.6) | ● | 55 (1.3) | 341 (10.9) | 20 (6.8) |
| ^{2a} Greece | 50 (1.0) | 535 (3.8) | ● | 50 (1.0) | 514 (4.0) | 21 (3.9) |
| Macedonia, Rep. of | 49 (0.9) | 452 (5.1) | ● | 51 (0.9) | 431 (4.8) | 21 (3.6) |
| Norway | 48 (1.0) | 510 (3.5) | ● | 52 (1.0) | 489 (3.4) | 21 (3.9) |
| Slovenia | 50 (0.8) | 512 (2.5) | ● | 50 (0.8) | 491 (2.4) | 22 (2.8) |
| Latvia | 48 (1.1) | 556 (3.1) | ● | 52 (1.1) | 534 (2.6) | 22 (3.4) |
| ^{2b} Israel | 50 (1.3) | 520 (3.4) | ● | 50 (1.3) | 498 (3.7) | 22 (4.3) |
| Sweden | 49 (0.7) | 572 (2.6) | ● | 51 (0.7) | 550 (2.5) | 22 (2.6) |
| ^{12a} England | 52 (1.1) | 564 (3.9) | ● | 48 (1.1) | 541 (3.7) | 22 (3.3) |
| Cyprus | 49 (0.9) | 506 (3.3) | ● | 51 (0.9) | 482 (3.6) | 24 (3.5) |
| Bulgaria | 51 (0.9) | 562 (3.7) | ● | 49 (0.9) | 538 (4.7) | 24 (3.6) |
| Singapore | 48 (1.5) | 540 (5.3) | ● | 52 (1.5) | 516 (5.7) | 24 (4.1) |
| Moldova, Rep. of | 50 (1.0) | 504 (4.7) | ● | 50 (1.0) | 479 (4.0) | 25 (4.0) |
| New Zealand | 49 (1.3) | 542 (4.7) | ● | 51 (1.3) | 516 (4.2) | 27 (5.4) |
| Iran, Islamic Rep. of | 55 (3.6) | 426 (5.7) | ● | 45 (3.6) | 399 (5.6) | 27 (8.1) |
| Belize | 50 (0.9) | 341 (5.3) | ● | 50 (0.9) | 314 (5.2) | 27 (4.8) |
| Kuwait ^r | 48 (0.3) | 422 (5.6) | ● | 52 (0.3) | 373 (6.3) | 48 (8.4) |
| | | | | | | |
| [*] Quebec (Canada) | 51 (0.9) | 544 (3.4) | ● | 49 (0.9) | 530 (3.1) | 14 (2.7) |
| [*] Ontario (Canada) | 49 (0.9) | 558 (3.8) | ● | 51 (0.9) | 538 (3.4) | 20 (2.7) |

● Significantly higher than other gender

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

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

† Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

‡ Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

1 National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

2a National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

2b National Defined Population covers less than 80% of National Desired Population (see Exhibit A.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.

Exhibit 1.4: Percentages of Girls and Boys Reaching Quartiles of Reading Achievement in Each Country**ISC** 4th Grade
PIRLS 2001

| Countries | Upper Quartile (Top 25%) | | Median (Top 50%) | | Lower Quartile (Top 75%) | |
|-----------------------|-----------------------------|--------------------|---------------------|--------------------|-----------------------------|--------------------|
| | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys | Percent of Girls | Percent of Boys |
| Argentina | 28 (2.3) ● | 22 (2.0) | 54 (2.7) ● | 46 (2.8) | 78 (2.5) ● | 72 (2.9) |
| Belize | 29 (2.1) ● | 21 (1.9) | 55 (2.0) ● | 45 (2.1) | 80 (1.8) ● | 71 (2.2) |
| Bulgaria | 30 (1.7) ● | 20 (1.7) | 55 (2.1) ● | 44 (2.4) | 79 (1.7) ● | 70 (2.3) |
| * 1 Canada (O,Q) | 29 (1.5) ● | 21 (1.5) | 54 (1.7) ● | 46 (1.5) | 79 (1.1) ● | 71 (1.2) |
| Colombia | 28 (2.3) ● | 22 (1.9) | 52 (2.5) ● | 48 (2.5) | 77 (2.1) | 74 (2.5) |
| Cyprus | 30 (1.7) ● | 20 (1.5) | 55 (1.9) ● | 45 (2.1) | 80 (1.4) ● | 71 (1.7) |
| Czech Republic | 27 (1.8) ● | 23 (1.5) | 54 (1.9) ● | 46 (2.2) | 79 (1.7) ● | 72 (1.8) |
| 2a England | 29 (1.8) ● | 21 (1.5) | 55 (2.2) ● | 45 (2.0) | 79 (1.6) ● | 71 (1.7) |
| France | 27 (1.4) ● | 23 (1.5) | 52 (1.9) | 48 (1.8) | 77 (1.4) ● | 73 (1.7) |
| Germany | 28 (1.5) ● | 22 (1.2) | 54 (1.5) ● | 46 (1.6) | 78 (1.2) ● | 72 (1.5) |
| 2a Greece | 29 (2.1) ● | 21 (2.1) | 55 (2.5) ● | 45 (2.5) | 80 (2.1) ● | 70 (2.1) |
| Hong Kong, SAR | 29 (1.8) ● | 21 (1.7) | 56 (2.4) ● | 44 (2.4) | 80 (1.7) ● | 70 (2.1) |
| Hungary | 28 (1.6) ● | 22 (1.4) | 54 (1.7) ● | 46 (2.0) | 78 (1.4) ● | 71 (1.4) |
| Iceland | 28 (1.5) ● | 22 (1.3) | 55 (1.5) ● | 45 (1.3) | 80 (0.9) ● | 70 (0.8) |
| Iran, Islamic Rep. of | 29 (2.6) ● | 20 (2.1) | 56 (2.8) ● | 43 (2.7) | 80 (1.9) ● | 70 (2.3) |
| 2a Israel | 29 (1.6) ● | 21 (1.5) | 55 (1.7) ● | 45 (1.6) | 79 (1.4) ● | 71 (1.5) |
| Italy | 27 (1.3) | 24 (1.6) | 53 (1.6) ● | 47 (1.7) | 77 (1.7) ● | 73 (1.6) |
| Kuwait r | 33 (3.0) ● | 18 (2.0) | 61 (2.7) ● | 40 (2.6) | 85 (1.5) ● | 66 (2.8) |
| Latvia | 32 (2.1) ● | 18 (1.6) | 58 (2.2) ● | 43 (1.8) | 80 (1.6) ● | 70 (1.7) |
| 1 Lithuania | 30 (1.8) ● | 20 (1.6) | 55 (2.1) ● | 45 (1.9) | 79 (1.6) ● | 71 (1.8) |
| Macedonia, Rep. of | 29 (1.8) ● | 21 (1.5) | 54 (2.5) ● | 46 (2.1) | 78 (2.0) ● | 72 (2.0) |
| Moldova, Rep. of | 30 (2.4) ● | 21 (1.9) | 56 (2.8) ● | 44 (2.3) | 81 (2.1) ● | 69 (2.0) |
| 1 Morocco | 28 (3.2) ● | 23 (3.6) | 54 (3.0) ● | 47 (3.8) | 78 (2.6) | 73 (3.1) |
| 1 Netherlands | 29 (1.9) ● | 21 (1.5) | 55 (2.2) ● | 45 (2.0) | 80 (1.6) ● | 71 (2.0) |
| New Zealand | 29 (2.1) ● | 21 (1.6) | 55 (2.3) ● | 45 (1.9) | 80 (1.8) ● | 70 (1.6) |
| Norway | 28 (1.9) ● | 22 (1.6) | 55 (1.9) ● | 45 (1.8) | 81 (1.7) ● | 70 (1.6) |
| Romania | 27 (2.0) ● | 23 (2.1) | 53 (2.2) ● | 47 (2.4) | 77 (1.7) ● | 73 (2.3) |
| 2a Russian Federation | 28 (2.4) ● | 22 (2.2) | 54 (2.4) ● | 46 (2.3) | 78 (2.1) ● | 72 (2.3) |
| 1 Scotland | 29 (2.0) ● | 21 (2.0) | 54 (2.0) ● | 46 (2.4) | 78 (1.7) ● | 72 (1.9) |
| Singapore | 29 (2.5) ● | 21 (1.8) | 55 (2.5) ● | 45 (2.5) | 79 (2.0) ● | 71 (2.3) |
| Slovak Republic | 28 (1.8) ● | 22 (1.6) | 55 (1.8) ● | 45 (1.9) | 80 (1.5) ● | 71 (1.8) |
| Slovenia | 29 (1.5) ● | 21 (1.3) | 57 (1.4) ● | 43 (1.5) | 80 (1.3) ● | 70 (1.5) |
| Sweden | 30 (1.7) ● | 20 (1.2) | 56 (1.8) ● | 44 (1.7) | 81 (1.4) ● | 69 (1.6) |
| Turkey | 28 (1.9) ● | 22 (1.6) | 54 (2.1) ● | 46 (1.8) | 79 (1.6) ● | 71 (1.5) |
| 1 United States | 27 (2.2) | 23 (2.0) | 53 (2.1) ● | 47 (2.5) | 79 (1.8) ● | 71 (2.1) |
| International Avg. | 29 (0.3) ● | 21 (0.3) | 55 (0.4) ● | 45 (0.4) | 79 (0.3) ● | 71 (0.3) |
| * Ontario (Canada) | 29 (1.9) ● | 21 (1.7) | 55 (2.3) ● | 45 (1.8) | 79 (1.5) ● | 71 (1.6) |
| * Quebec (Canada) | 29 (1.9) ● | 21 (1.8) | 54 (2.0) ● | 46 (2.0) | 78 (1.9) ● | 71 (1.7) |

● Significantly greater percentage than other gender

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

- * Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.
- † Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).
- ‡ Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).
- 1 National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

2a National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

2b National Defined Population covers less than 80% of National Desired Population (see Exhibit A.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.



Chapter 2

Achievement in Reading for Literary Experience and Reading To Acquire and Use Information

For PIRLS, reading literacy is defined as:

the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers, and for enjoyment.

Based on this definition, purposes for reading and processes of comprehension formed the foundation for the PIRLS written assessment and students' attitudes and reading habits were addressed through questionnaires.

Chapter 2 presents results by the two overarching purposes for reading assessed by PIRLS:

- reading for literary experience, and
- reading to acquire and use information.¹

Essentially, the PIRLS assessment was designed so that half the passages, time, and questions tested reading for literary purposes and half tested for informational purposes. The comprehension processes were assessed within each purpose (see Chapter 3). In literary reading, the reader becomes involved in imagined events, settings, actions, consequences, characters, atmospheres, feelings, and ideas; bringing his or her own experiences, feelings, appreciation of language, and knowledge of literary forms to the text. In reading for information, the reader engages not with imagined worlds, but with aspects of the real universe. Through informational texts, one can understand how the world is and has been, and why things work as they do. These texts take many forms, but one major distinction is between chronological and non-chronological organization.

Each of these purposes for reading is often associated with certain types of texts. For example, reading for literary experience is often accomplished through reading fiction, while reading to acquire and use information

is generally associated with informative articles and instructional texts. The early reading of most young children centers on literary and narrative text types. In addition, many young readers also enjoy acquiring information from books and other types of reading material. This kind of reading becomes more important as students develop their literacy abilities, and is increasingly required in order to learn across the curriculum.

The texts were selected from sources typical of those available to students in and out of school.

¹ For a full description see Campbell, J.R., Kelly, D.L., Mullis, I.V.S., Martin, M.O., & Sainsbury, M. (2001). *Framework and specifications for PIRLS assessment 2001* (2nd ed.). Chestnut Hill, MA: Boston College.

In PIRLS, the assessment contained an equal proportion of material assessing each purpose. The literary texts were narrative fiction in the form of short stories. The informational texts represented a variety of chronological and non-chronological texts. The texts, submitted by and exhaustively reviewed by the participating countries, were selected from sources typical of those available to students in and out of school. Three of the texts accompany this report in the back pocket, a fourth text is available in Appendix C, and example items are presented in Chapter 3.

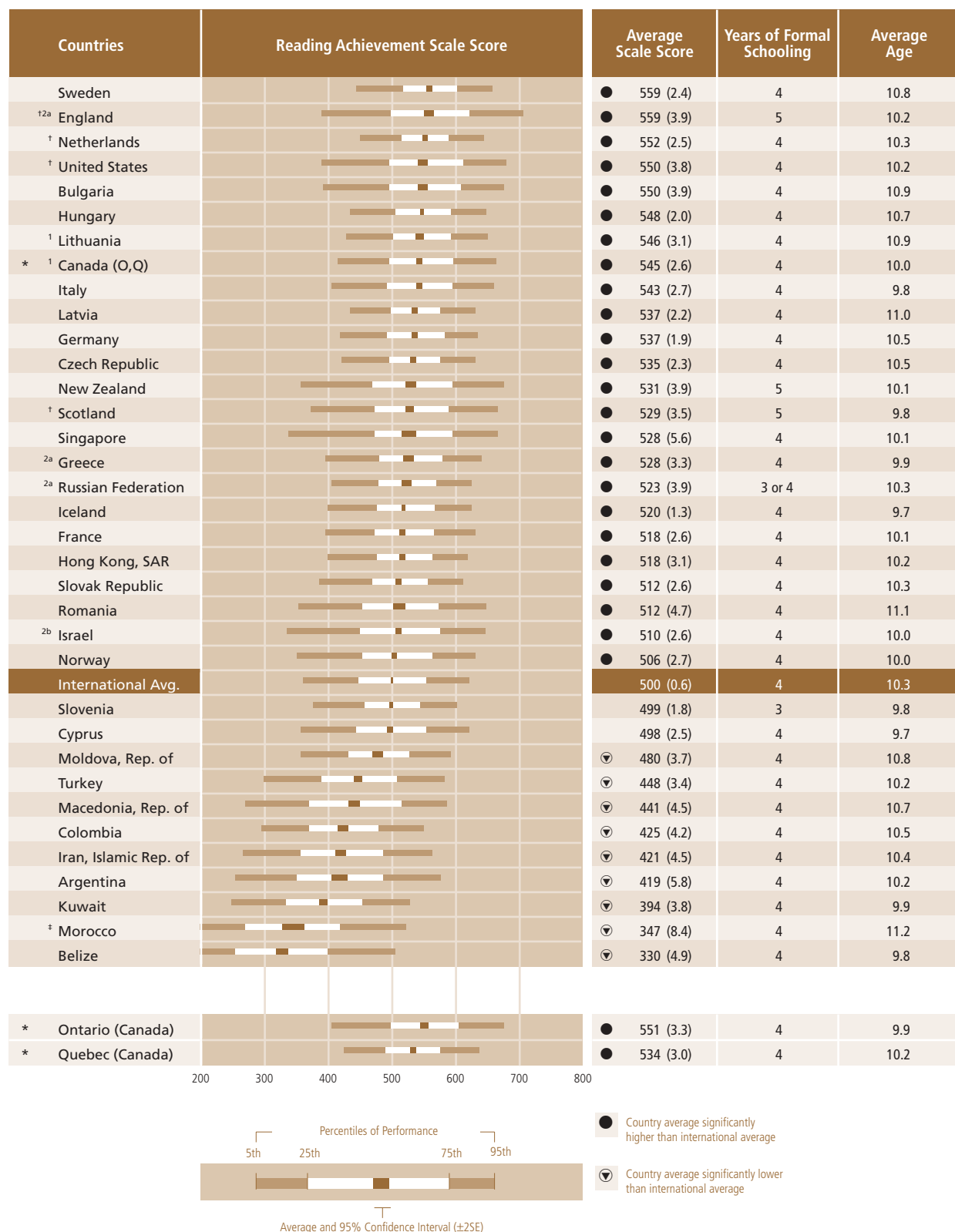
How Does Achievement Differ Across Reading Literacy Purposes?

Performance in reading for literary purposes is presented for each of the participating countries in Exhibits 2.1 and 2.2. These exhibits, respectively, present the distributions of student achievement in reading for literary purposes and the comparisons in mean achievement among pairs of individual countries. Exhibits 2.3 and 2.4 contain the corresponding data for student achievement in reading for informational purposes.

Exhibits 2.1 and 2.3 for literary and informational purposes are graphically consistent with the display of distributions in overall reading achievement (Exhibit 1.1). For each of the two major reading purposes, countries are shown in decreasing order of average achievement, together with an indication of whether the country average is significantly higher or lower than the international average. To allow comparison of the relative performance of each country for each purpose, the international average for each purpose was scaled to be 500, the same as the overall international average.

The range in performance across the participating countries was nearly identical for the two purposes (229 scale-score points for literary compared to 227 for informational), and approximately the same number of countries performed significantly above and below the international average. In reading for literary purposes, 24 countries performed above the international average, 2 similar to it, and 9 below it. In reading for informational purposes, 23 countries



Exhibit 2.1: Distribution of Reading Achievement for Literary Purposes**ISC** 4th Grade
PIRLS 2001

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

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

† Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

‡ Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

1 National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

2a National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

2b National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 2.2: Multiple Comparisons of Average Reading Achievement for Literary Purposes

ISC
4th Grade
PIRLS 2001

Instructions: Read across the row for a country to compare performance with the countries listed along the top of the chart. The symbols indicate whether the average achievement of the country in the row is significantly lower than that of the comparison country, significantly higher than that of the comparison country, or if there is no statistically significant difference between the average achievement of the two countries.

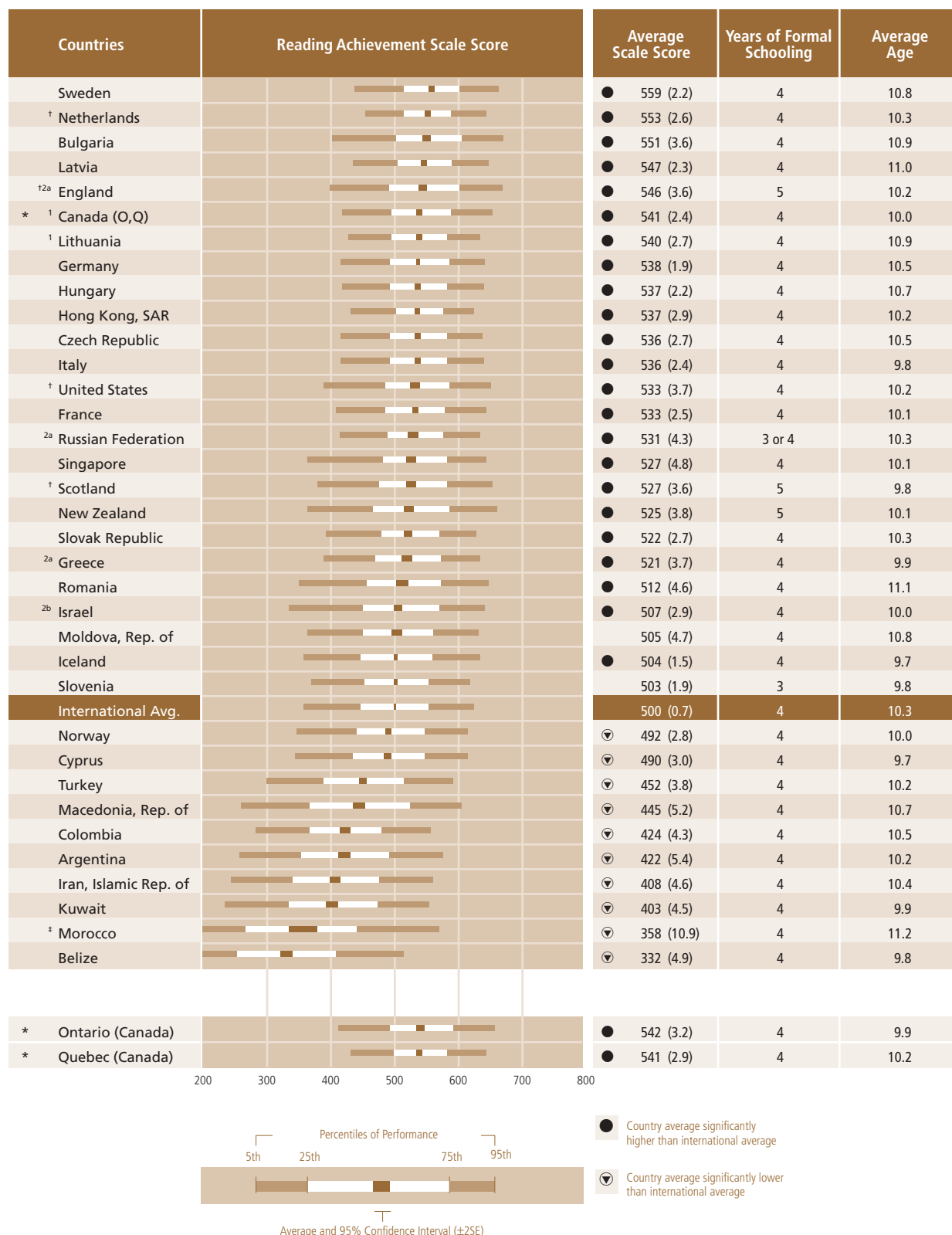
| | | Sweden | England | Netherlands | United States | Bulgaria | Hungary | Lithuania | Canada (O,Q) | Italy | Latvia | Germany | Czech Republic | New Zealand | Scotland | Singapore | Greece | Russian Federation | Iceland | France | Hong Kong, SAR | Slovak Republic | Romania | Israel | Norway | Slovenia | Cyprus | Moldova, Rep. of | Turkey | Macedonia, Rep. of | Colombia | Iran, Islamic Rep. of | Argentina | Kuwait | Morocco | Belize | | | | | | |
|---|-----------------------|--------|---------|-------------|---------------|----------|---------|-----------|--------------|-------|--------|---------|----------------|-------------|----------|-----------|--------|--------------------|---------|--------|----------------|-----------------|---------|--------|--------|----------|--------|------------------|--------|--------------------|----------|-----------------------|-----------|--------|---------|--------|---|---|---|---|---|---|
| | Sweden | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | England | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Netherlands | ▼ | | | | | | | ● | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | United States | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Bulgaria | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Hungary | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Lithuania | ▼ | ▼ | | ▼ | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| * | Canada (O,Q) | ▼ | ▼ | ▼ | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Italy | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Latvia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Germany | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Czech Republic | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | New Zealand | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Scotland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Singapore | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Greece | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Russian Federation | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Iceland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | France | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | |
| | Hong Kong, SAR | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| | Slovak Republic | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Romania | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Israel | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Norway | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Slovenia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Cyprus | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Moldova, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | |
| | Turkey | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Macedonia, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | ● | | |
| | Colombia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | | |
| | Iran, Islamic Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | | |
| | Argentina | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | |
| | Kuwait | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | |
| | Morocco | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● |
| | Belize | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● |
| * | Ontario (Canada) | ▼ | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | |
| * | Quebec (Canada) | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | |

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

● Average achievement significantly higher than comparison country

▼ Average achievement significantly lower than comparison country

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

Exhibit 2.3: Distribution of Reading Achievement for Informational Purposes**ISC** 4th Grade
PIRLS 2001

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

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

1 National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

2a National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

2b National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 2.4: Multiple Comparisons of Average Reading Achievement for Informational Purposes
ISC 4th Grade
PIRLS 2001

Instructions: Read across the row for a country to compare performance with the countries listed along the top of the chart. The symbols indicate whether the average achievement of the country in the row is significantly lower than that of the comparison country, significantly higher than that of the comparison country, or if there is no statistically significant difference between the average achievement of the two countries.

| | Sweden | Netherlands | Bulgaria | Latvia | England | Canada (O,Q) | Lithuania | Germany | Hungary | Hong Kong, SAR | Czech Republic | Italy | United States | France | Russian Federation | Singapore | Scotland | New Zealand | Slovak Republic | Greece | Romania | Israel | Moldova, Rep. of | Iceland | Slovenia | Norway | Cyprus | Turkey | Macedonia, Rep. of | Colombia | Argentina | Iran, Islamic Rep. of | Kuwait | Morocco | Belize |
|-----------------------|--------|-------------|----------|--------|---------|--------------|-----------|---------|---------|----------------|----------------|-------|---------------|--------|--------------------|-----------|----------|-------------|-----------------|--------|---------|--------|------------------|---------|----------|--------|--------|--------|--------------------|----------|-----------|-----------------------|--------|---------|--------|
| Sweden | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Netherlands | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Bulgaria | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Latvia | ▼ | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| England | ▼ | | | | | | | | ● | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| * Canada (O,Q) | ▼ | ▼ | ▼ | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Lithuania | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Germany | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Hungary | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Hong Kong, SAR | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Czech Republic | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Italy | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| United States | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| France | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Russian Federation | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Singapore | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Scotland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| New Zealand | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Slovak Republic | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Greece | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Romania | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Israel | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Moldova, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Iceland | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Slovenia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Norway | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Cyprus | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Turkey | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Macedonia, Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Colombia | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Argentina | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Iran, Islamic Rep. of | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Kuwait | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Morocco | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| Belize | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ▼ | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| * Ontario (Canada) | ▼ | ▼ | ▼ | | | | | | | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| * Quebec (Canada) | ▼ | ▼ | ▼ | | | | | | | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

● Average achievement significantly higher than comparison country

▼ Average achievement significantly lower than comparison country

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

performed above the international average, 2 similar to it, and 10 below it. However, while the ordering is similar for the two purposes and overall achievement, there are some interesting differences between literary and informational reading in the relative performance of the PIRLS countries.²

The exhibits comparing average achievement among pairs of individual countries for literary (Exhibit 2.2) and informational (Exhibit 2.4) purposes use the same format as for overall reading achievement (Exhibit 1.2) and are read the same way, by selecting a country and looking across the table. A triangle pointing up indicates significantly higher performance than the comparison country listed across the top; absence of a symbol indicates no significant difference; and a triangle pointing down indicates significantly lower performance.

Sweden and England had the highest average achievement in reading for literary purposes, with Sweden having significantly higher mean achievement than the rest of the other participating countries and England performing significantly better than all the other countries except The Netherlands, the United States, and Bulgaria.

Seven additional countries – The Netherlands, the United States, Bulgaria, Hungary, Lithuania, Canada, and Italy – also performed very well in reading for literary purposes, having significantly higher achievement than many other participating countries (20 or more). Only Sweden outperformed The Netherlands, the United States, and Bulgaria. Hungary and Lithuania were outperformed only by Sweden and England, and Canada (O,Q) and Italy were outperformed only by The Netherlands in addition to Sweden and England.

In reading for informational purposes, Sweden, The Netherlands, and Bulgaria had the highest average achievement, with Sweden having significantly higher mean achievement than the rest of the countries, and The Netherlands and Bulgaria performing significantly better than all the other countries except Latvia and England. Latvia and England also did very well being outperformed only by Sweden, and having higher average achievement than most of the other participating countries. Canada (O,Q) was outperformed by only the three top-performing countries, while having higher achievement than 22 participants.

2 See the Appendix A for the correlations in achievement for the two purposes in each country.

In Which Reading Purposes Are Countries Relatively Strong or Weak?

Exhibit 2.5 displays the difference between average achievement in the literary and informational purposes for each country.³ The results reveal that many countries performed relatively better or worse in one purpose compared to the other (darkened bar indicates difference is statistically significant). Differences in relative performance may be related to one or more of a number of factors, such as emphases in intended curricula or widely used textbooks, strengths or weaknesses in curriculum implementation, and the grade level at which certain reading comprehension strategies are introduced.

Countries with significantly higher relative performance in reading for literary purposes included the United States, Iceland, Norway, England, Iran, Hungary, Cyprus, Italy, Greece, New Zealand, Lithuania, Israel, and Canada (O,Q). Countries with higher relative performance in reading for informational purposes included Moldova, Hong Kong, France, Morocco, the Slovak Republic, Latvia, Kuwait, the Russian Federation, Macedonia, Slovenia, and Turkey.

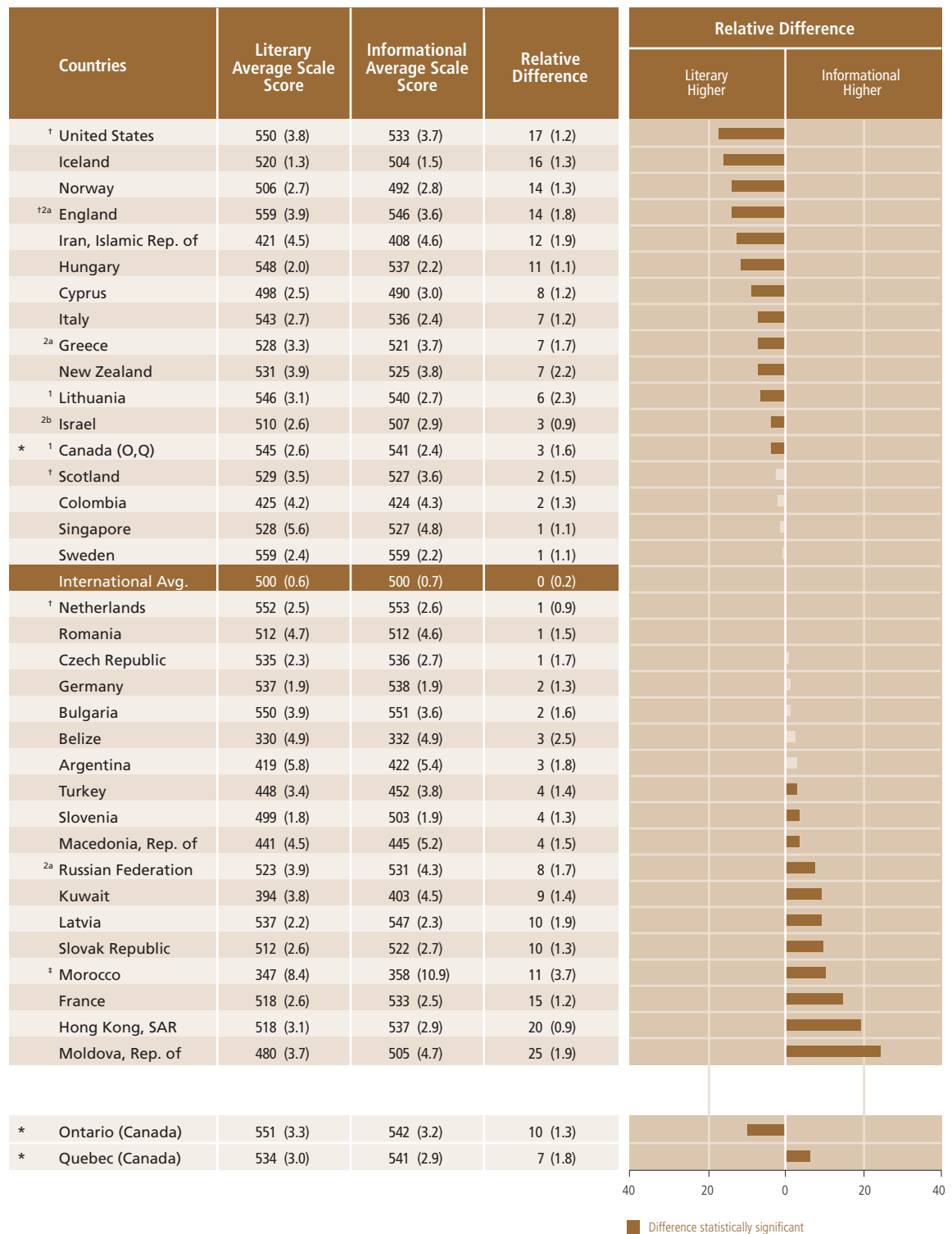
What Are the Gender Differences in Achievement for the Content Areas?

Listed alphabetically by country, Exhibit 2.6 shows average achievement by gender in reading for literary and informational purposes. Mirroring the overall results, girls had significantly higher achievement than boys for both overarching reading purposes in each country. In some countries, however, the gender differences appeared to be somewhat more pronounced for the literary than the informational purposes. This is consistent with the previous IEA reading literacy study⁴ and research in other countries⁵ showing that the largest differences between girls and boys were found in the narrative domain, in almost every case.

3 Since the PIRLS scales were developed using Item Response Theory (IRT) technology (see Procedural Appendix), like all such scales the Literary and Informational scales cannot be described in absolute terms. While the scales are expressed in the same numerical units, they are not directly comparable in terms of being able to say how much achievement or learning in one equals how much achievement or learning in the other.

4 Wagemaker, H. (Ed.). (1996). *Are girls better readers?* Amsterdam: International Association for the Evaluation of Educational Achievement.

5 For example, grade 4 assessments in the United States have found larger gender differences favoring girls in reading for literary experience than reading to gain information (see NAEP 1994 *Reading Report Card for the Nation and the States*).

Exhibit 2.5: Relative Difference in Performance Between Literary and Informational Purposes

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 2.6: Reading for Literary and Informational Purposes by Gender

| Countries | Literary | | | Informational | | |
|----------------------------------|---------------------------------|--------------------------------|------------|---------------------------------|--------------------------------|------------|
| | Girls Average Scale Score | Boys Average Scale Score | Difference | Girls Average Scale Score | Boys Average Scale Score | Difference |
| Argentina | 429 (6.2) ● | 408 (6.2) | 21 (4.6) | 429 (6.0) ● | 415 (5.9) | 15 (4.9) |
| Belize | 340 (5.3) ● | 320 (5.6) | 20 (5.1) | 349 (5.1) ● | 316 (5.9) | 32 (5.0) |
| Bulgaria | 563 (4.2) ● | 535 (5.1) | 28 (5.4) | 561 (3.4) ● | 541 (4.2) | 20 (3.1) |
| * ¹ Canada (O,Q) | 554 (3.0) ● | 535 (2.7) | 19 (2.2) | 549 (3.0) ● | 534 (2.6) | 16 (2.7) |
| Colombia | 431 (4.9) ● | 419 (4.8) | 12 (4.6) | 430 (5.2) ● | 417 (4.9) | 12 (5.4) |
| Cyprus | 512 (2.9) ● | 485 (3.3) | 26 (3.7) | 500 (3.1) ● | 480 (3.5) | 20 (2.8) |
| Czech Republic | 543 (2.7) ● | 528 (2.7) | 14 (2.8) | 541 (3.3) ● | 532 (3.1) | 9 (3.5) |
| ^{12a} England | 574 (4.9) ● | 544 (4.0) | 30 (4.3) | 554 (4.0) ● | 537 (4.0) | 17 (3.5) |
| France | 524 (2.9) ● | 513 (3.2) | 11 (3.2) | 540 (2.9) ● | 527 (3.1) | 12 (3.3) |
| Germany | 544 (2.1) ● | 529 (2.4) | 14 (2.5) | 543 (2.5) ● | 533 (2.1) | 10 (2.6) |
| ^{2a} Greece | 539 (3.8) ● | 516 (3.7) | 23 (3.5) | 529 (3.9) ● | 513 (4.4) | 15 (3.8) |
| Hong Kong, SAR | 528 (3.4) ● | 507 (3.4) | 21 (3.4) | 546 (2.8) ● | 529 (3.6) | 17 (3.1) |
| Hungary | 558 (2.1) ● | 538 (2.6) | 20 (2.5) | 542 (2.5) ● | 532 (2.8) | 10 (3.0) |
| Iceland | 531 (1.9) ● | 509 (1.7) | 21 (2.4) | 512 (1.9) ● | 496 (2.0) | 16 (2.6) |
| Iran, Islamic Rep. of | 433 (5.7) ● | 406 (6.4) | 28 (8.7) | 419 (6.4) ● | 395 (6.1) | 24 (8.8) |
| ^{2b} Israel | 521 (3.3) ● | 498 (3.2) | 23 (3.9) | 518 (3.5) ● | 495 (3.6) | 23 (4.2) |
| Italy | 549 (2.7) ● | 538 (3.3) | 11 (2.8) | 539 (2.7) ● | 533 (2.6) | 6 (2.6) |
| Kuwait ^r | 416 (5.2) ● | 373 (5.4) | 43 (7.4) | 430 (6.1) ● | 378 (6.7) | 52 (9.1) |
| Latvia | 548 (2.8) ● | 527 (2.2) | 21 (2.4) | 558 (2.8) ● | 537 (2.6) | 22 (2.8) |
| ¹ Lithuania | 554 (3.4) ● | 536 (3.7) | 18 (3.8) | 548 (2.9) ● | 532 (2.9) | 16 (2.8) |
| Macedonia, Rep. of | 453 (4.6) ● | 430 (4.9) | 22 (3.3) | 454 (5.6) ● | 437 (5.8) | 17 (4.8) |
| Moldova, Rep. of | 492 (4.3) ● | 468 (3.6) | 23 (3.4) | 516 (5.5) ● | 494 (4.7) | 23 (4.5) |
| [†] Morocco | 358 (8.5) ● | 340 (9.1) | 19 (5.1) | 370 (10.8) ● | 349 (11.9) | 20 (6.3) |
| [†] Netherlands | 561 (2.8) ● | 544 (3.2) | 17 (3.3) | 559 (2.9) ● | 547 (2.9) | 11 (2.4) |
| New Zealand | 546 (4.7) ● | 517 (4.6) | 30 (5.1) | 536 (4.5) ● | 514 (4.4) | 21 (4.6) |
| Norway | 519 (3.4) ● | 494 (3.1) | 24 (3.6) | 499 (3.7) ● | 486 (3.1) | 14 (3.9) |
| Romania | 518 (4.2) ● | 505 (6.1) | 13 (4.4) | 519 (4.6) ● | 506 (5.6) | 13 (4.3) |
| ^{2a} Russian Federation | 531 (3.9) ● | 517 (4.3) | 14 (2.9) | 536 (4.5) ● | 527 (4.6) | 9 (2.8) |
| [†] Scotland | 538 (4.0) ● | 519 (4.1) | 19 (3.9) | 534 (4.3) ● | 520 (4.1) | 14 (4.4) |
| Singapore | 541 (5.7) ● | 516 (6.0) | 25 (4.2) | 538 (4.9) ● | 517 (5.3) | 21 (3.8) |
| Slovak Republic | 519 (2.9) ● | 505 (2.9) | 14 (2.8) | 530 (2.8) ● | 514 (3.4) | 16 (3.3) |
| Slovenia | 509 (2.4) ● | 490 (2.4) | 19 (3.1) | 514 (2.6) ● | 492 (2.5) | 21 (3.4) |
| Sweden | 572 (2.9) ● | 547 (2.6) | 25 (2.8) | 568 (2.8) ● | 550 (2.6) | 18 (3.2) |
| Turkey | 460 (3.8) ● | 437 (3.6) | 22 (2.9) | 460 (4.6) ● | 444 (4.2) | 16 (4.5) |
| [†] United States | 558 (4.2) ● | 542 (4.6) | 16 (4.3) | 541 (4.1) ● | 525 (4.3) | 16 (4.0) |
| International Avg. | 511 (0.7) ● | 490 (0.7) | 21 (0.7) | 509 (0.7) ● | 491 (0.8) | 18 (0.8) |
| * Ontario (Canada) | 563 (4.0) ● | 540 (3.3) | 24 (3.2) | 550 (3.9) ● | 533 (3.4) | 17 (3.5) |
| * Quebec (Canada) | 541 (3.5) ● | 526 (3.4) | 15 (3.5) | 546 (3.3) ● | 535 (3.1) | 10 (2.9) |

● Significantly higher than other gender

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

- * Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.
- † Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).
- ‡ Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).
- ¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.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.



Chapter 3

Performance at International Benchmarks

The PIRLS 2001 reading achievement scale summarizes student performance on test questions (items) designed to assess a wide range of reading skills and strategies. More specifically, PIRLS focused on assessing processes of comprehension as they functioned and interacted within literary and informational reading purposes.

In order to provide meaningful descriptions of what performance on the scale indicates in terms of students' reading proficiency, PIRLS identified four points on the scale as international benchmarks, and conducted an ambitious scale anchoring exercise to describe performance at these benchmarks in terms of the comprehension processes demonstrated by students.

Chapter 3 presents the achievement results for each of the following international benchmarks:

- **The Lower Quarter Benchmark.** Defined as the 25th percentile and corresponding to a scale score of 435, this is the point above which the top 75 percent of students scored.
- **The Median Benchmark.** Defined as the 50th percentile or median and corresponding to a scale score of 510, this is the point above which the top half of the students scored.
- **The Upper Quarter Benchmark.** Defined as the 75th percentile and corresponding to a scale score of 570, this is the point above which the top 25 percent of students scored.
- **The Top 10% Benchmark.** Defined as the 90th percentile and corresponding to a scale score of 615, this is the point above which the top 10 percent of the students scored.

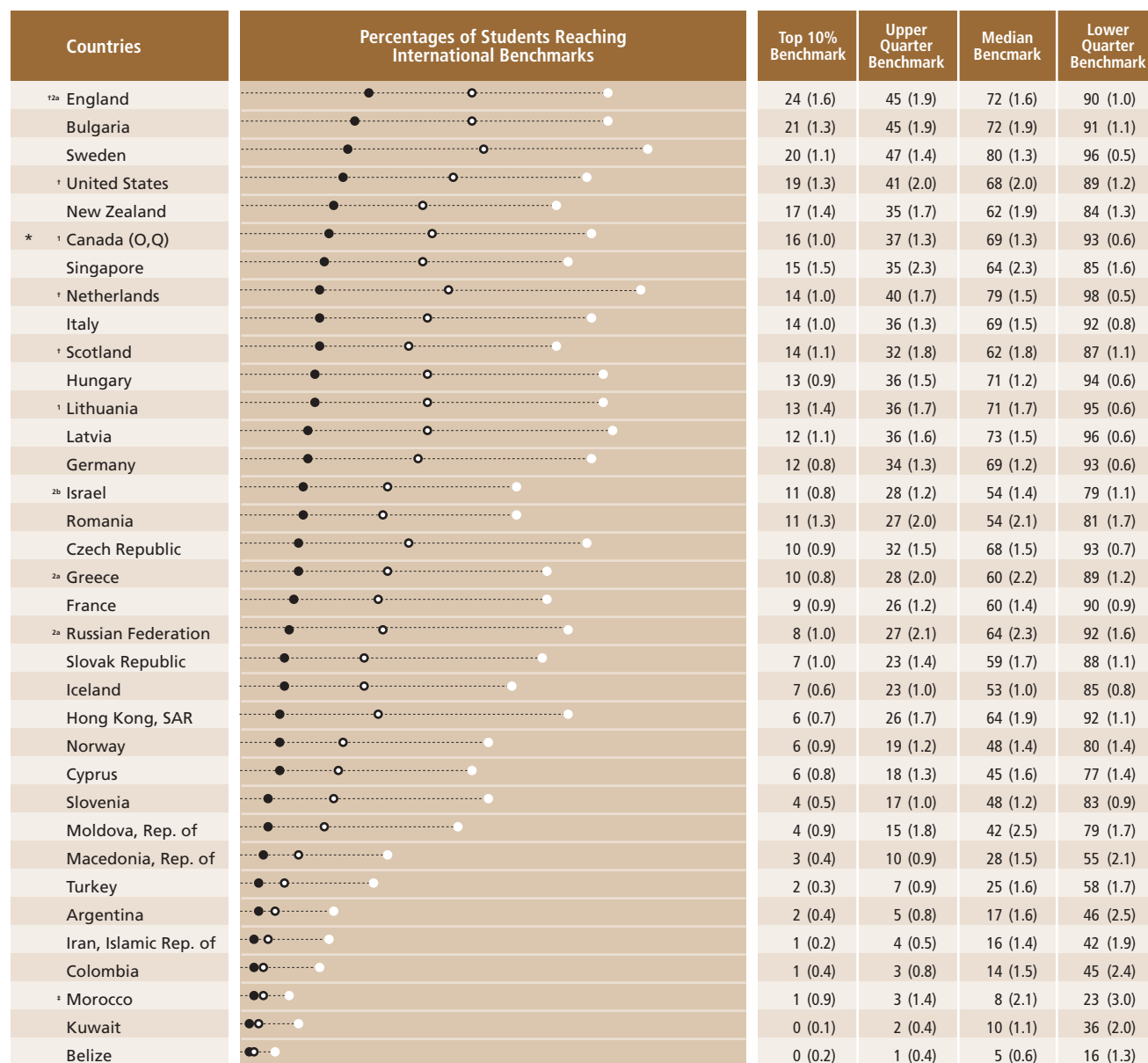
As countries around the world strive to teach their children to become avid and successful readers, it is important to learn as much as possible about students' strengths and weaknesses in reading comprehension. To help interpret the PIRLS 2001 achievement results, the chapter describes the types of reading skills and strategies displayed by fourth-grade students at each of the international benchmarks together with examples of the types of items typically answered acceptably by those students.

How Do Countries Compare with International Benchmarks of Performance Reading Achievement?

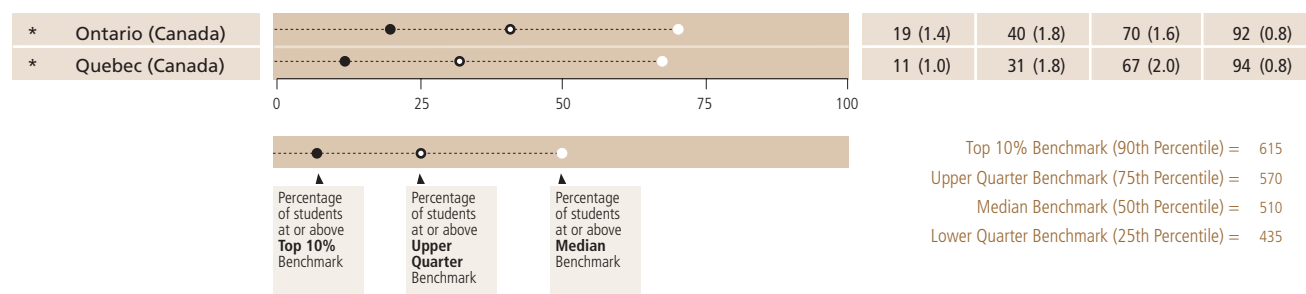
Exhibit 3.1 displays the percentage of students in each participating country that reached each international benchmark, in decreasing order by percentage reaching the Top 10% Benchmark. If students' reading achievement was distributed in the same way in every country, then each country would be expected to have approximately 10 percent of its students reaching the Top 10% Benchmark, 25 percent the Upper Quarter Benchmark, 50 percent the Median Benchmark, and 75 percent the Lower Quarter Benchmark. Although Israel and Romania came fairly close, no country followed this pattern exactly.

Looking at the top of Exhibit 3.1, the results show that England and Bulgaria performed similarly. In both countries, 21 to 23 percent of the students reached the Top 10% Benchmark, 44 to 45 percent the Upper Quarter Benchmark, 71 to 72 percent the Median Benchmark, and 90 to 91 percent the Lower Quarter Benchmark. In Sweden, approximately the same percentage of students reached the Top 10% Benchmark, but somewhat more students than in England and Bulgaria attained each of the successively lower benchmarks. Sweden had one-fifth of its students reaching the Top 10% Benchmark, nearly half (47%) reaching the Upper Quarter Benchmark, four-fifths reaching the Median Benchmark, and nearly all students (96%) reaching the Lower Quarter Benchmark.

Although Exhibit 3.1 is organized to draw particular attention to the percentage of high-achieving students in each country, it conveys important information about the distribution of middle and lower performers also. For example, even though The Netherlands, Lithuania, and Latvia had fewer students reaching the Top 10% Benchmark than England, they had nearly all of their fourth-grade students (95% or more) reaching the Lower Quarter Benchmark. The Czech Republic had the anticipated 10 percent of students reaching the Top 10% Benchmark, but more than the anticipated amount reaching the other three benchmarks – about one-third at the Upper Quarter, two-thirds at the Median, and 93 percent at the Lower Quarter.

Exhibit 3.1: Percentages of Students Reaching PIRLS International Benchmarks in Reading Achievement**ISC** 4th Grade
PIRLS 2001

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



^{*} Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

What Was the Nature of the PIRLS Reading Test?

The PIRLS 2001 assessment was based on eight different texts of 400 to 700 words in length – four literary and four informational. Four of these texts have been released to the public and are included in this report to provide a basis for understanding the achievement results. The remaining four texts and accompanying item sets are being held secure for use in measuring trends in reading achievement in PIRLS 2006. Three of the released texts are in the back pocket of the report, including the “River Trail” activities leaflet and the two passages presented in the PIRLS Reader (“Hare” story and “Pufflings” article). The fourth released text (“Mice” story), all four item sets corresponding to the released texts, and the scoring guides for the constructed-response items are found in Appendix C.

Since the descriptions of students’ reading at the four international benchmarks are derived from the PIRLS 2001 assessment, the following section briefly summarizes the full set of texts and items included in the test. As children participate in their daily lives at home and in school, they are faced with a broad range of literacy demands and PIRLS 2001 attempted to mirror this environment as much as possible by including a variety of text types and a broad range of test items.

To help ensure that the materials selected would be appropriate for fourth-grade students, countries participating in PIRLS 2001 contributed a substantial number of “authentic” (from existing sources) stories, articles, and other types of reading materials for review. The texts underwent extensive review by the National Research Coordinators and reading experts from the PIRLS 2001 countries, the PIRLS 2001 expert development group (the RDG), and staff members from the consortium of organizations responsible for implementing PIRLS 2001. From the texts selected for further development, eventually 16 text and item sets (twice the requisite number for the actual assessment) were field tested in the participating countries.

The four literary texts selected for the PIRLS 2001 assessment all were narrative in form. As illustrated by the “Hare” and “Mice” stories, the texts

PIRLS included a variety of text types and a broad range of test items.

were selected to represent a range of traditional and contemporary short stories. The four informational texts are representative of continuous and noncontinuous texts, with the continuous texts being chronologically or topically organized (or both). One is the “River Trail” recreational leaflet, but the other three – represented by the “Pufflings” article – are nonfiction in a narrative form (e.g., historical biography) typical of articles found in informational books or children’s school magazines.

Within reading for literary and informational purposes, the test questions or items were designed to measure the four major processes of reading comprehension briefly described below:¹

- **Focus on and Retrieve Explicitly Stated Information.** The student needed to recognize the relevance of the information or ideas presented in the text in relation to the information sought, but looking for specific information or ideas typically involved locating a sentence or phrase (approximately 20% of the assessment).
- **Make Straightforward Inferences.** Based mostly on information contained in the texts, usually these types of questions required students to connect two ideas presented in adjacent sentences and fill in a “gap” in meaning. Skilled readers often make these kinds of inferences automatically, recognizing the relationship even though it is not stated in the text (approximately 40%).
- **Interpret and Integrate Ideas and Information.** For these questions, students needed to process the text beyond the phrase or sentence level. Sometimes they were asked to make connections that were not only implicit, but needed to draw on their own knowledge and experiences (approximately 25%).
- **Examine and Evaluate Content, Language, and Textual Elements.** These questions required students to draw on their knowledge of text genre and structure, as well as their understanding of language conventions and devices (approximately 15%).

1 For a more detailed description of the processes of reading comprehension assessed in PIRLS 2001, please see Campbell, J.R., Kelly, D.L., Mullis, I.V.S., Martin, M.O., & Sainsbury, M. (2001). *Framework and specifications for PIRLS assessment 2001* (2nd ed.). Chestnut Hill, MA: Boston College.

About half the items required students to construct their own answers to the questions. The constructed-response questions took three different forms:

- For **one-point items**, responses were scored as **acceptable** if they included all elements required by the question and were determined to be accurate based on ideas of information in the text.
- For **two-point items**, responses were given **full credit** (2 points) that demonstrated complete comprehension by providing appropriate inferences and interpretations consistent with text and adequate textually-based support if required. They were given **partial credit** (1 point) if they included only some of the information or demonstrated only a literal understanding when an inference or interpretation was required.
- For **three-point items**, responses were given **full credit** (3 points) if they demonstrated extensive comprehension by presenting relatively complex, abstract ideas or by providing substantial textual support for inferences and interpretations. Responses were given **two different levels of partial credit** – **satisfactory** responses (2 points) contained all the required elements but did not provide complex or abstract ideas, were more literal than interpretive, or were weak in textually-based support; and **minimal** responses (1 point) contained some but not all of the required elements.

How Were the Benchmark Descriptions Developed?

To develop descriptions of achievement at the PIRLS 2001 international benchmarks, the PIRLS International Study Center used the scale anchoring method. Scale anchoring is a way of describing students' performance at different points on the reading achievement scale in terms of the types of texts they were asked to read and the types of items they answered successfully. It involved an empirical component in which items that discriminate between successive points on the scale were identified, and a judgmental component in which reading experts examined the content of the texts and items and generalized to students' comprehension skills and strategies.

For the scale anchoring analysis, the results of students from all the participating countries were pooled, so that the benchmark descriptions refer to all students achieving at that level. That is, it does not matter which country the students are from, only how they performed on the test. Criteria were applied to the reading achievement scale results to identify the sets of items that students reaching each international benchmark were likely to answer correctly and that those at the next lower benchmark were unlikely to answer correctly.²

The sets of items produced by the analysis represented the accomplishments of students reaching each successively higher benchmark, and were used by the PIRLS Reading Development Group (RDG) consisting of reading experts from countries around the world³ to develop the benchmark descriptions. The work of the panel involved developing a short description for each item characterizing the reading skills and strategies demonstrated by students answering it partially or fully, and then summarizing students' reading proficiency across the set of items for each benchmark to provide more general statements of achievement. Since the students reaching a particular benchmark demonstrated the proficiency characterizing that benchmark as well as the proficiency of students at the lower benchmarks, the description of achievement at each benchmark is cumulative. The description of each benchmark builds on the description of achievement demonstrated by students at the next lower benchmark.

How Should the Benchmark Descriptions Be Interpreted?

In thinking of the difficulty of any reading task, there is, of course, a substantial interaction between the length and complexity of the text and the sophistication of the comprehension processes required. In looking at the processes assessed by PIRLS 2001, it may initially seem that locating and extracting explicitly stated information would be less difficult than, for example, making interpretations across a whole text and integrating those with external ideas and experiences. All texts are not equal, however, varying enormously in numerous features such as length, syntactic complexity, abstractness of ideas, and organizational structure. For example, some informational

2 For example, at the Top 10% Benchmark, a multiple-choice item anchored if at least 65 percent of students scoring at the scale point corresponding to this benchmark (615) answered the item correctly and less than 50 percent of students scoring at the Upper Quarter Benchmark answered it correctly. Similarly, for the Upper Quarter Benchmark, a multiple-choice item anchored if at least 65 percent of students scoring at that point (570) answered the item correctly and less than 50 percent of students at the Median Benchmark answered it correctly. Since guessing is greatly reduced, the criteria for the constructed-response items was simply 50 percent at the particular benchmark, and the analysis included partial-credit responses as well as those receiving full credit. See Procedural Appendix for more detail.

3 The PIRLS Reading Development Group (RDG) is listed in Appendix F.

texts are organized in short, clearly-labeled subsections by discrete topics, while others are not. In some literary stories, characters' feelings or intentions are described directly while in other stories they are suggested through dialog or action.

Because of the interplay between text and question, the benchmark descriptions at each of the four levels are presented specifically in terms of the literary and informational texts given fourth-grade students in the PIRLS 2001 assessment:

- Literary texts included four short stories with one or two episodes of problem/resolution and essentially two central characters.
- Informational texts included four sets of short informational materials involving text, maps, illustrations, diagrams, and photographs organized topically or chronologically.

Given a limited set of relatively short texts, students with higher performance on the PIRLS reading achievement scale were more likely than those at lower levels to successfully complete questions requiring interpretation and integration of information. Because of the extremely wide range of texts available to fourth-grade students, this does not mean, however, that such interpretive reading tasks are always more difficult than tasks requiring retrieval of explicit information. The descriptions of reading skills and strategies developed based on the PIRLS reading achievement scale are intended to explain differences in achievement on the PIRLS 2001 assessment, and in no way purport to be comprehensive of all reading situations encountered by fourth-grade students.

The remainder of this chapter describes fourth-grade students' reading achievement at each of the four benchmarks beginning with the Lower Quarter Benchmark and working up the scale cumulatively. The description of achievement at each benchmark is accompanied by six example items representing students' reading proficiency at that level. For each example item, the percent acceptable for each of the PIRLS 2001 countries is displayed in one of three columns according to whether the country's achievement on the item was statistically significantly different from the international average. The first column

presents countries above the international average, the second column contains countries with no statistically significant difference, and the third column countries below the international average. The international average can be found in the middle column.

The correct answer is circled for multiple-choice items. For constructed-response items, the answers shown exemplify the types of student responses that were given for either partial or full credit. That is, since the achievement descriptions are cumulative, students at one benchmark may have provided a partial response, while those at the next higher benchmark provided a complete or even extensive response.

In general, the countries scoring highest on the overall PIRLS assessment also scored highest on many of the items used to illustrate the benchmarks. Likewise, the countries with the lowest average achievement also tended to have consistently low percentages of successful responses on the illustrative items. This, however, was not strictly the case and countries can benefit from a scrutiny of their students' performance item by item.

Achievement at the Lower Quarter Benchmark

As shown in Exhibit 3.2, students at the Lower Quarter Benchmark demonstrated the most success on items requiring retrieval of explicitly stated details from the various literary and informational texts. In retrieving explicitly stated information, focus on the text typically remains at the sentence or phrase level. Generally, this process needs little or no inferring or interpreting. However, students reaching this benchmark also demonstrated success with some items requiring straightforward inferences, that is, based mostly on information based on the text.

Exhibits 3.3, 3.4, and 3.5 present Example Items 1, 2, and 3, respectively, which were based on literary texts and were likely to be answered correctly by students reaching the Lower Quarter Benchmark. Example Item 1 is based on the "Hare" story in the PIRLS reader (see back pocket of report). Essentially, the hare mistakenly thinks a falling fruit is an earthquake and the lion calms the hare down. The results show that students reaching this benchmark correctly answered what made the earth shake in the story about

the lion and the hare. With an international average of 86 percent correct responses, this multiple-choice item was relatively easy for students in the PIRLS countries. In 20 countries, 90 percent or more of the students selected the right answer.

Example Items 2 and 3 are based on the “Mice” story found in Appendix C. In summary, an old man named Labon gets rid of mice by fooling the mice into thinking the ceiling is the floor. This makes the mice do things upside down so that they become dizzy and fall to the floor. The results to Example Item 2 indicate that students understood why Labon wanted to get rid of the mice. This item was slightly more difficult than Example Item 1, with an international average of 79 percent correct and 90 percent or more of students answering correctly in five countries (The Netherlands, Sweden, Latvia, the Czech Republic, and Italy). In Example Item 3, students reaching the Lower Quarter Benchmark retrieved and reproduced the information from the “Mice” story that Labon put the mice in a basket after he picked them up from the floor. Even though in a constructed-response format, the international average was quite high (84%).

In reading informational texts, students reaching the Lower Quarter Benchmark correctly answered a multiple-choice question based on the “Pufflings” article. As can be seen from the PIRLS Reader in the back pocket of the report, the “Pufflings” article featured the activities of Halla and her friends to explain how children save baby puffins that accidentally land in their town. It is in a narrative form, but has relatively sophisticated syntax and no section headings or markers. As shown in Example Item 4 (see Exhibit 3.6), students at or above the Lower Quarter Benchmark were able to locate and retrieve the information that the puffins came to the island to lay eggs (international average 78%). Ninety percent or more of students answered correctly in Germany, Sweden, and The Netherlands.

Exhibits 3.7 and 3.8 contain Example Items 5 and 6, respectively, both based on the “River Trail” leaflet (see back pocket of report). Briefly, the leaflet provides a map, some information about places to visit, and a section on renting bikes. The results show that students attaining the Lower Quarter Benchmark could locate information and retrieve facts from various types of

informational material. In Example Item 5, students at the Lower Quarter benchmark demonstrated that they were able to read the map in the “River Trail” leaflet to determine that the River Trail started in Altenburg (international average 82%). In Example Item 6, they correctly specified the order of the places encountered along the trail (international average 76%). Hong Kong was the top-performing country on both of these River Trail items, but 90 percent or more of students answered correctly in several other countries.

Exhibit 3.2: Description of Lower Quarter PIRLS International Benchmark of Reading Achievement**ISC****4th Grade
PIRLS 2001****Lower Quarter PIRLS Benchmark****Reading for Literary Experience**

Given short stories with one or two episodes of problem/resolution and essentially two central characters, students can:

- Retrieve and reproduce explicitly stated details about a character's actions and feelings presented through narration, description, or dialog
- Locate the relevant part of the story and use it to make inferences clearly suggested by the text.

Reading to Acquire and Use Information

Given a variety of short informational materials including text, maps, illustrations, diagrams, and photographs organized topically or chronologically, students can:

- Locate and reproduce explicitly stated facts about people, places, and animals
- Locate the sentence with relevant information and use it to make inferences clearly suggested by the text.

PIRLS Reading Scale Score
at the 25th Percentile

435

Exhibit 3.3: Lower Quarter PIRLS International Benchmark – Example Item 1**ISC****4th Grade**
PIRLS 2001**Purpose: Literary Experience****1 Point: Full Credit Sample Response and Results**

2. What made the whole earth shake?

- ☐ A an earthquake
- ☒ B an enormous fruit
- ☐ C the fleeing hares
- ☐ D a falling tree

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| [†] Netherlands | 95 (1.0) | Hungary | 88 (1.2) | Iran, Islamic Rep. of | 82 (1.6) |
| Czech Republic | 94 (1.5) | Norway | 87 (1.4) | Colombia | 80 (1.9) |
| ¹ Lithuania | 94 (1.0) | ^{2a} Russian Federation | 87 (1.6) | Macedonia, Rep. of | 73 (2.3) |
| Latvia | 93 (1.1) | Slovenia | 86 (1.3) | Argentina | 69 (2.1) |
| Italy | 93 (1.0) | Romania | 86 (1.6) | Turkey | 68 (1.6) |
| ^{2a} Greece | 93 (1.1) | International Avg. | 86 (0.3) | Kuwait | 64 (2.7) |
| * ¹ Canada (O,Q) | 93 (0.9) | | | [‡] Morocco | 57 (2.8) |
| ^{2b} Israel | 93 (0.8) | | | Belize | 49 (4.0) |
| [†] Scotland | 92 (1.2) | | | | |
| Bulgaria | 92 (1.3) | | | | |
| Iceland | 91 (1.5) | | | | |
| Slovak Republic | 91 (1.1) | | | | |
| ^{12a} England | 91 (1.2) | | | | |
| France | 91 (1.1) | | | | |
| Sweden | 91 (1.0) | | | | |
| [†] United States | 91 (1.3) | | | | |
| Hong Kong, SAR | 91 (0.9) | | | | |
| Germany | 90 (0.8) | | | | |
| New Zealand | 90 (1.7) | | | | |
| Singapore | 90 (0.9) | | | | |
| Moldova, Rep. of | 89 (1.1) | | | | |
| Cyprus | 89 (1.1) | | | | |
| | | | | | |
| * Ontario (Canada) | 94 (1.1) | | | | |
| * Quebec (Canada) | 90 (1.4) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.4: Lower Quarter PIRLS International Benchmark – Example Item 2**ISC** 4th Grade
PIRLS 2001**Purpose: Literary Experience****1 Point: Full Credit Sample Response and Results**

1. Why did Labon want to get rid of the mice?

- ☐ A He had always hated mice.
- ☒ B There were too many of them.
- ☐ C They laughed too loudly.
- ☐ D They ate all his cheese.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| [†] Netherlands | 94 (0.8) | New Zealand | 82 (2.1) | Iceland | 74 (1.3) |
| Sweden | 94 (0.7) | International Avg. | 79 (0.3) | Turkey | 71 (1.6) |
| Latvia | 92 (1.5) | [†] Scotland | 79 (2.2) | Argentina | 70 (2.0) |
| Czech Republic | 91 (1.1) | Moldova, Rep. of | 79 (1.8) | Iran, Islamic Rep. of | 68 (1.6) |
| Italy | 90 (1.0) | Singapore | 77 (1.7) | Norway | 65 (2.1) |
| Germany | 89 (1.0) | | | Macedonia, Rep. of | 64 (1.9) |
| ¹ Lithuania | 89 (1.5) | | | Colombia | 61 (2.2) |
| ^{2a} Greece | 89 (1.5) | | | [‡] Morocco | 56 (2.8) |
| France | 89 (1.4) | | | Kuwait | 47 (1.8) |
| Hungary | 88 (1.1) | | | Belize | 37 (2.2) |
| Slovak Republic | 88 (1.4) | | | | |
| Slovenia | 87 (1.2) | | | | |
| * ¹ Canada (O,Q) | 86 (1.2) | | | | |
| ^{12a} England | 86 (1.6) | | | | |
| Romania | 85 (1.4) | | | | |
| [†] United States | 84 (1.5) | | | | |
| Hong Kong, SAR | 84 (1.4) | | | | |
| ^{2b} Israel | 84 (1.1) | | | | |
| ^{2a} Russian Federation | 83 (1.7) | | | | |
| Cyprus | 83 (1.7) | | | | |
| Bulgaria | 83 (1.6) | | | | |
| * Quebec (Canada) | 90 (1.5) | | | | |
| * Ontario (Canada) | 84 (1.5) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.


^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.5: Lower Quarter PIRLS International Benchmark – Example Item 3**ISC****4th Grade**
PIRLS 2001**Purpose: Literary Experience****1 Point: Full Credit Sample Response and Results**

10. Where did Labon put the mice when he picked them up from the floor?

 In a basket

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Czech Republic | 97 (0.6) | Cyprus | 87 (1.5) | Turkey | 80 (1.3) |
| ¹ Lithuania | 96 (1.0) | [†] United States | 87 (1.4) | Macedonia, Rep. of | 76 (1.7) |
| Slovak Republic | 95 (0.9) | ^{2b} Israel | 86 (1.1) | Iran, Islamic Rep. of | 75 (2.1) |
| Latvia | 95 (0.9) | New Zealand | 86 (1.7) | Colombia | 68 (2.2) |
| ^{2a} Russian Federation | 95 (1.2) | Norway | 86 (1.4) | Argentina | 68 (2.3) |
| Sweden | 94 (0.8) | International Avg. | 84 (0.2) | Kuwait | 51 (1.7) |
| Germany | 94 (0.7) | [†] Scotland | 83 (1.8) | [‡] Morocco | 42 (3.3) |
| Hungary | 94 (0.9) | | | Belize | 38 (2.3) |
| Slovenia | 93 (1.1) | | | | |
| Hong Kong, SAR | 93 (0.9) | | | | |
| France | 93 (0.9) | | | | |
| [†] Netherlands | 93 (1.1) | | | | |
| Bulgaria | 92 (1.3) | | | | |
| Italy | 92 (0.9) | | | | |
| ^{12a} England | 91 (1.0) | | | | |
| Iceland | 90 (1.1) | | | | |
| * ¹ Canada (O,Q) | 90 (0.9) | | | | |
| ^{2a} Greece | 89 (1.7) | | | | |
| Moldova, Rep. of | 89 (1.2) | | | | |
| Romania | 88 (1.4) | | | | |
| Singapore | 88 (1.4) | | | | |
| | | | | | |
| * Quebec (Canada) | 93 (1.2) | | | | |
| * Ontario (Canada) | 88 (1.2) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.6: Lower Quarter PIRLS International Benchmark – Example Item 4**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

3. Why do the puffins come to the island?

- ☐ A to be rescued
- ☐ B to look for food
- ☒ C to lay eggs
- ☐ D to learn to fly

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Germany | 93 (0.8) | Iceland | 81 (2.0) | Cyprus | 74 (1.7) |
| Sweden | 92 (0.8) | New Zealand | 81 (1.8) | Turkey | 69 (1.5) |
| [†] Netherlands | 91 (1.4) | France | 80 (1.4) | Argentina | 63 (2.6) |
| ^{12a} England | 88 (1.4) | ^{2b} Israel | 80 (1.4) | Iran, Islamic Rep. of | 62 (1.9) |
| Hong Kong, SAR | 88 (1.1) | Romania | 78 (2.2) | Macedonia, Rep. of | 61 (1.9) |
| ^{2a} Greece | 87 (1.5) | International Avg. | 78 (0.3) | Colombia | 57 (1.9) |
| ¹ Lithuania | 87 (1.3) | Slovenia | 76 (1.7) | Kuwait | 54 (2.1) |
| Hungary | 87 (1.2) | Moldova, Rep. of | 76 (2.5) | Belize | 53 (3.5) |
| ^{2a} Russian Federation | 86 (1.4) | | | [‡] Morocco | 47 (2.5) |
| Latvia | 86 (1.5) | | | | |
| Singapore | 86 (1.2) | | | | |
| Czech Republic | 85 (1.8) | | | | |
| Bulgaria | 85 (1.4) | | | | |
| Slovak Republic | 85 (1.3) | | | | |
| Italy | 85 (1.5) | | | | |
| [*] ¹ Canada (O,Q) | 84 (1.1) | | | | |
| Norway | 84 (1.3) | | | | |
| [†] Scotland | 83 (1.6) | | | | |
| [†] United States | 83 (1.5) | | | | |
| [*] Ontario (Canada) | 86 (1.4) | [*] Quebec (Canada) | 81 (1.5) | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.7: Lower Quarter PIRLS International Benchmark – Example Item 5**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

3. Where does the River Trail start?

- ☐ A Banheim
- ☐ B Gründorf
- ☒ C Altenburg
- ☐ D Riverside Valley Park

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Hong Kong, SAR | 93 (0.8) | Cyprus | 85 (1.7) | Germany | 79 (1.2) |
| Norway | 93 (1.1) | Moldova, Rep. of | 85 (1.5) | Iran, Islamic Rep. of | 78 (1.4) |
| [†] Netherlands | 91 (1.2) | Hungary | 85 (1.3) | ^{2b} Israel | 78 (1.6) |
| Italy | 90 (1.4) | Latvia | 84 (1.8) | Colombia | 75 (1.7) |
| [†] Scotland | 90 (1.3) | ¹ Lithuania | 83 (1.4) | Turkey | 72 (1.5) |
| Bulgaria | 90 (1.3) | International Avg. | 82 (0.3) | Kuwait | 70 (1.6) |
| ^{†2a} England | 90 (1.2) | | | Iceland | 70 (1.4) |
| ^{2a} Greece | 90 (1.5) | | | Macedonia, Rep. of | 69 (2.1) |
| [†] United States | 89 (1.2) | | | Argentina | 64 (2.3) |
| Czech Republic | 89 (1.4) | | | [†] Morocco | 59 (2.8) |
| Singapore | 89 (1.2) | | | Belize | 55 (2.2) |
| France | 89 (1.3) | | | | |
| Slovak Republic | 88 (1.3) | | | | |
| ^{2a} Russian Federation | 88 (1.1) | | | | |
| New Zealand | 87 (1.2) | | | | |
| Romania | 87 (1.6) | | | | |
| Slovenia | 86 (1.3) | | | | |
| [*] ¹ Canada (O,Q) | 86 (1.0) | | | | |
| Sweden | 86 (1.3) | | | | |
| [*] Ontario (Canada) | 88 (1.3) | [*] Quebec (Canada) | 82 (1.8) | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.8: Lower Quarter PIRLS International Benchmark – Example Item 6**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

4. Number these places in the order you would see them on the River Trail from the beginning to the end. Number 1 has been done for you.

4 Gründorf Castle
2 Banheim
1 Riverside Valley Park
3 River Hotel

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Hong Kong, SAR | 92 (1.0) | Cyprus | 79 (1.8) | ^{2a} Greece | 66 (3.1) |
| France | 90 (1.5) | Romania | 77 (2.6) | Argentina | 65 (2.1) |
| Sweden | 90 (1.0) | Norway | 77 (1.5) | Moldova, Rep. of | 60 (2.7) |
| Singapore | 90 (1.1) | Slovenia | 76 (1.7) | Kuwait | 58 (1.7) |
| * ¹ Canada (O,Q) | 90 (1.0) | International Avg. | 76 (0.3) | Macedonia, Rep. of | 57 (2.4) |
| Germany | 90 (0.8) | | | Colombia | 54 (2.1) |
| Italy | 89 (1.2) | | | Turkey | 53 (1.8) |
| ^{12a} England | 89 (1.2) | | | Iran, Islamic Rep. of | 47 (1.7) |
| Hungary | 89 (1.1) | | | Belize | 38 (2.1) |
| [†] Netherlands | 88 (1.5) | | | [‡] Morocco | 37 (3.5) |
| [†] United States | 88 (1.4) | | | | |
| [†] Scotland | 86 (1.5) | | | | |
| Czech Republic | 86 (1.4) | | | | |
| Latvia | 85 (1.3) | | | | |
| Bulgaria | 84 (1.6) | | | | |
| ^{2a} Russian Federation | 84 (1.3) | | | | |
| ¹ Lithuania | 83 (1.6) | | | | |
| ^{2b} Israel | 82 (1.4) | | | | |
| New Zealand | 81 (1.8) | | | | |
| Iceland | 80 (1.3) | | | | |
| Slovak Republic | 79 (1.6) | | | | |
| * Quebec (Canada) | 90 (1.4) | | | | |
| * Ontario (Canada) | 90 (1.4) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Achievement at the Median Benchmark

Exhibit 3.9 describes reading skills and strategies demonstrated by students reaching the Median Benchmark. These students demonstrated the ability to make elementary inferences and interpretations. In contrast to the Lower Quarter Benchmark, inferences based on literary texts went beyond single phrases or sentences to sets of clearly related sentences or even different parts of the text. In informational texts, students reaching the Median Benchmark were able to locate specific sections of text to retrieve information. In some instances, they were able to provide textually-based support for their ideas. Another advance for students reaching this level was the ability to make observations about whole texts such as recognizing the overall message or giving a general reaction. Finally, students achieving at or above the Median Benchmark showed initial understanding of elements of story structure.

As shown in Exhibit 3.10, presenting Example Item 7 from the “Hare” story, students reaching the Median Benchmark were able to give a story-based reason for why the lion liked the hare (full credit, 1 point). In Example Item 8 (Exhibit 3.11), they described how the hare’s feelings changed during the story by providing an appropriate feeling and explanation for both the beginning and the ending of the story (full credit, 2 points). On average, internationally, about half the students received full credit on these two questions (51% and 56%, respectively). Romanian students (77% full credit) had the highest achievement on Example Item 7. Especially Swedish students, but also those in the United States and The Netherlands, were successful on Example Item 8 with four-fifths or more providing a complete answer.

Exhibit 3.12 contains Example Item 9 illustrating that students at the Median Benchmark were able to identify the mood of an entire story. Example Item 9 is a multiple-choice question asking students to characterize the entire “Mice” story as “funny and clever.” In general, students did relatively well on this item (international average 68%), especially in Greece (90%), Cyprus (87%), and The Netherlands (87%).

In reading informative texts, students at or above the Median Benchmark were likely to correctly answer a multiple-choice item based on the “Pufflings” article (see Example Item 10 in Exhibit 3.13). To answer correctly,

students needed to locate a specific part of the text without the aid of section headings and make an inference about the pufflings being in danger of being run over by cars and trucks. The international average was 71 percent. Sweden, Germany, The Netherlands, France, and the Russian Federation had 85 percent or more of their students answering correctly.

As illustrated by Example Item 11 in Exhibit 3.14, students reaching the Median Benchmark demonstrated the ability to locate specific information in tabular form in the River Trail leaflet and then correctly infer the cost of hiring a bike (full credit, 1 point). The international average was 70 percent. Only in Sweden did 90 percent or more of students (91%) answer correctly; 85 to 89 percent did so in France, Hong Kong, England, and The Netherlands.

As shown in Example Item 12 (Exhibit 3.15), students reaching the Median level also were able to identify at least one type of rental bike equipment appropriate for children (partial credit, 1 point). The international average was 64 percent for students providing at least one type of equipment. It should be noted that students providing two types of equipment (full credit, 2 points) also would have reached the Median Benchmark. The results show that except in the lower-performing countries, students providing one type of children's rental equipment also gave a second type.

Exhibit 3.9: Description of Median PIRLS International Benchmark of Reading Achievement

ISC

4th Grade
PIRLS 2001

Median PIRLS Benchmark

Reading for Literary Experience

Given short stories with one or two episodes of problem/resolution and essentially two central characters, students can:

- Recognize and state relationships between events (e.g., why something happened) by inferring connections among clearly related sentences
- Recognize the overall message or effect of the story
- Identify elements of story structure including plot and character (e.g., narrator, role of major character, sequence of events, beginning/end)
- Make elementary interpretations of a character's actions and aims, drawing on different parts of the text.

Reading to Acquire and Use Information

Given a variety of short informational materials including text, maps, illustrations, diagrams, and photographs organized topically or chronologically, students can:

- Make inferences to locate and extract or match explicitly stated information from text
- Locate the appropriate section of a leaflet containing text, tables, a map, and pictures, and extract some relevant information
- Give a general reaction to the whole text, sometimes supported by a specific example.

PIRLS Reading Scale Score
at the 50th Percentile

510

Exhibit 3.10: Median PIRLS International Benchmark – Example Item 7

ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

1 Point: Full Credit Sample Response and Results

8. Do you think the lion liked the hare? What happens in the story that shows this?

① Yes, because he helped the hare understand what happened.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| | | International Avg. | 51 (0.3) | | |
| Romania | 77 (1.8) | | | Sweden | 45 (1.5) |
| ^{12a} England | 71 (2.3) | | | Norway | 43 (2.0) |
| Hungary | 71 (1.6) | | | Macedonia, Rep. of | 41 (1.9) |
| Bulgaria | 70 (1.9) | | | Turkey | 41 (2.2) |
| Kuwait | 69 (2.0) | | | Slovenia | 35 (2.0) |
| [†] United States | 68 (2.3) | | | ^{2a} Russian Federation | 35 (2.3) |
| [*] ¹ Canada (O,Q) | 67 (1.6) | | | Latvia | 33 (2.2) |
| [†] Netherlands | 67 (1.9) | | | Argentina | 31 (2.1) |
| France | 66 (1.7) | | | Iran, Islamic Rep. of | 31 (1.9) |
| Czech Republic | 65 (2.2) | | | Moldova, Rep. of | 30 (2.3) |
| Italy | 63 (1.8) | | | Slovak Republic | 25 (1.8) |
| Hong Kong, SAR | 62 (2.0) | | | [†] Morocco | 25 (3.2) |
| [†] Scotland | 62 (2.2) | | | Colombia | 19 (1.7) |
| Iceland | 60 (3.0) | | | Belize | 5 (1.1) |
| ¹ Lithuania | 60 (2.2) | | | | |
| Germany | 59 (1.4) | | | | |
| Cyprus | 59 (1.9) | | | | |
| New Zealand | 58 (2.4) | | | | |
| ^{2b} Israel | 58 (1.9) | | | | |
| Singapore | 58 (1.8) | | | | |
| ^{2a} Greece | 57 (2.4) | | | | |
| [*] Ontario (Canada) | 67 (2.3) | | | | |
| [*] Quebec (Canada) | 65 (2.2) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.11: Median PIRLS International Benchmark – Example Item 8

ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

2 Points: Full Credit Sample Response and Results

9. How did the hare's feelings change during the story?

At the beginning of the story the hare felt worried
he thought there was an earthquake
 because _____

At the end of the story the hare felt Calm
 because the lion had showed him what
happened

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 88 (1.2) | Czech Republic | 58 (2.3) | Macedonia, Rep. of | 50 (1.9) |
| [†] United States | 80 (1.7) | Kuwait | 58 (2.3) | Slovak Republic | 49 (2.0) |
| [†] Netherlands | 80 (1.7) | International Avg. | 56 (0.3) | Hong Kong, SAR | 49 (1.9) |
| Cyprus | 77 (1.9) | Slovenia | 55 (1.9) | Hungary | 45 (1.7) |
| ^{12a} England | 75 (1.9) | | | ^{2a} Russian Federation | 43 (2.2) |
| Romania | 75 (2.0) | | | Moldova, Rep. of | 43 (2.3) |
| Italy | 75 (1.5) | | | Argentina | 37 (2.8) |
| [*] ¹ Canada (O,Q) | 73 (1.5) | | | Colombia | 36 (2.2) |
| Singapore | 72 (1.7) | | | Turkey | 32 (1.4) |
| ^{2a} Greece | 71 (2.9) | | | Iceland | 24 (2.6) |
| France | 70 (1.7) | | | [†] Morocco | 13 (2.4) |
| New Zealand | 70 (2.4) | | | Iran, Islamic Rep. of | 11 (1.1) |
| Germany | 69 (1.3) | | | Belize | 7 (1.4) |
| [†] Scotland | 68 (2.0) | | | | |
| Bulgaria | 68 (2.1) | | | | |
| ¹ Lithuania | 66 (2.1) | | | | |
| Norway | 62 (2.3) | | | | |
| Latvia | 62 (2.0) | | | | |
| ^{2b} Israel | 61 (1.7) | | | | |
| | | | | | |
| [*] Quebec (Canada) | 76 (2.1) | | | | |
| [*] Ontario (Canada) | 72 (2.0) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.12: Median PIRLS International Benchmark – Example Item 9**ISC** 4th Grade
PIRLS 2001**Purpose: Literary Experience****1 Point: Full Credit Sample Response and Results**

13. Which words best describe this story?

- ☐ A serious and sad
- ☐ B scary and exciting
- ☒ C funny and clever
- ☐ D thrilling and mysterious

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| ^{2a} Greece | 90 (1.5) | Latvia | 71 (2.4) | France | 63 (2.0) |
| Cyprus | 87 (1.2) | [†] Scotland | 71 (1.9) | ^{2b} Israel | 61 (1.8) |
| [†] Netherlands | 87 (1.6) | Hong Kong, SAR | 70 (1.7) | Macedonia, Rep. of | 58 (2.1) |
| Hungary | 83 (1.3) | International Avg. | 68 (0.3) | Slovenia | 57 (2.1) |
| Swede | 82 (1.1) | Romania | 64 (2.3) | Moldova, Rep. of | 54 (2.5) |
| Norway | 81 (1.6) | | | Colombia | 52 (2.1) |
| [†] United States | 81 (1.6) | | | Turkey | 47 (2.1) |
| ¹ Lithuania | 80 (1.9) | | | [†] Morocco | 46 (2.4) |
| Singapore | 80 (1.5) | | | Argentina | 45 (2.2) |
| Czech Republic | 80 (1.7) | | | Belize | 38 (1.8) |
| Germany | 79 (1.6) | | | Iran, Islamic Rep. of | 35 (1.6) |
| New Zealand | 77 (2.3) | | | Kuwait | 31 (1.9) |
| Slovak Republic | 77 (1.7) | | | | |
| ^{†2a} England | 77 (1.5) | | | | |
| Iceland | 76 (1.5) | | | | |
| Italy | 76 (1.7) | | | | |
| * ¹ Canada (O,Q) | 74 (1.2) | | | | |
| Bulgaria | 72 (1.8) | | | | |
| ^{2a} Russian Federation | 72 (1.7) | | | | |
| | | | | | |
| * Ontario (Canada) | 80 (1.6) | | | * Quebec (Canada) | 64 (2.1) |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).[†] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.13: Median PIRLS International Benchmark – Example Item 10**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

9. According to the article, which of these is a danger faced by the pufflings?
- ☐ A drowning while landing in the sea
 - ☐ B getting lost in the burrows
 - ☐ C not having enough fish from their parents
 - ☒ D being run over by cars and trucks

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 88 (0.9) | Romania | 74 (2.2) | ^{2b} Israel | 63 (1.8) |
| Germany | 87 (1.0) | Iceland | 73 (2.4) | Iran, Islamic Rep. of | 61 (1.8) |
| [†] Netherlands | 87 (1.3) | Hong Kong, SAR | 73 (1.5) | Macedonia, Rep. of | 56 (2.2) |
| France | 86 (1.2) | Slovenia | 72 (1.8) | Turkey | 52 (1.8) |
| ^{2a} Russian Federation | 85 (1.7) | Norway | 71 (1.7) | Colombia | 51 (2.1) |
| Latvia | 83 (1.6) | International Avg. | 71 (0.3) | Argentina | 49 (2.9) |
| Czech Republic | 82 (2.0) | Moldova, Rep. of | 68 (2.3) | Kuwait | 37 (2.2) |
| [*] ¹ Canada (O,Q) | 82 (1.3) | Cyprus | 68 (2.1) | [†] Morocco | 37 (2.4) |
| ¹ Lithuania | 81 (1.7) | | | Belize | 29 (3.9) |
| ^{2a} Greece | 80 (2.0) | | | | |
| Hungary | 80 (1.4) | | | | |
| Slovak Republic | 78 (1.5) | | | | |
| Bulgaria | 78 (1.9) | | | | |
| Italy | 78 (1.5) | | | | |
| [†] United States | 76 (2.2) | | | | |
| ^{†2a} England | 76 (1.9) | | | | |
| [†] Scotland | 76 (1.9) | | | | |
| Singapore | 76 (1.6) | | | | |
| New Zealand | 76 (1.8) | | | | |
| [*] Quebec (Canada) | 85 (1.6) | | | | |
| [*] Ontario (Canada) | 79 (1.9) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.14: Median PIRLS International Benchmark – Example Item 11**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

5. How much would it cost a 10-year-old child to hire a bike for a full day?

 \$9

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 91 (1.1) | International Avg. | 70 (0.3) | Slovenia | 63 (2.2) |
| France | 89 (1.1) | Moldova, Rep. of | 69 (2.5) | Argentina | 51 (2.5) |
| Hong Kong, SAR | 87 (1.4) | ^{2a} Greece | 68 (2.3) | Turkey | 49 (2.1) |
| ^{12a} England | 85 (1.4) | Cyprus | 68 (2.2) | Kuwait | 46 (2.2) |
| [†] Netherlands | 85 (1.6) | | | Macedonia, Rep. of | 45 (2.4) |
| [†] Scotland | 84 (1.5) | | | Colombia | 44 (2.6) |
| * ¹ Canada (O,Q) | 84 (1.1) | | | Iran, Islamic Rep. of | 35 (1.7) |
| Germany | 84 (1.0) | | | [‡] Morocco | 30 (3.8) |
| Singapore | 84 (1.6) | | | Belize | 18 (2.0) |
| Bulgaria | 82 (1.6) | | | | |
| [†] United States | 82 (1.4) | | | | |
| Czech Republic | 81 (1.7) | | | | |
| Latvia | 80 (1.8) | | | | |
| Hungary | 79 (1.7) | | | | |
| ¹ Lithuania | 78 (1.7) | | | | |
| New Zealand | 76 (1.7) | | | | |
| Norway | 76 (1.7) | | | | |
| ^{2b} Israel | 75 (1.5) | | | | |
| Romania | 75 (2.1) | | | | |
| ^{2a} Russian Federation | 75 (2.3) | | | | |
| Slovak Republic | 74 (1.7) | | | | |
| Italy | 74 (1.9) | | | | |
| Iceland | 72 (1.4) | | | | |
| * Quebec (Canada) | 89 (1.1) | | | | |
| * Ontario (Canada) | 81 (1.7) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).



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

Exhibit 3.15: Median PIRLS International Benchmark – Example Item 12**ISC** 4th Grade
PIRLS 2001

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

Purpose: Acquire and Use Information**1 out of 2 Points: Partial Credit Sample Response and Results**

6. Zippy Bike Hire rents out equipment for children.
Write **two** things that are for children.

-  1. children's bikes
-  2. _____

Percentage of Students Obtaining at Least Partial Credit

| Country Average Significantly Higher than International Average | | | No Statistically Significant Difference Between Country Average and International Average | | | Country Average Significantly Lower than International Average | | |
|---|------------------|--------------|---|------------------|--------------|--|------------------|--------------|
| | At Least 1 Point | Only 1 Point | | At Least 1 Point | Only 1 Point | | At Least 1 Point | Only 1 Point |
| [†] Netherlands | 91 (1.1) | 10 (1.0) | Cyprus | 66 (2.0) | 20 (1.7) | Moldova, Rep. of | 60 (2.0) | 16 (1.5) |
| Sweden | 86 (1.1) | 14 (1.0) | International Avg. | 64 (0.3) | 17 (0.2) | Italy | 59 (2.0) | 18 (1.4) |
| Slovak Republic | 85 (1.3) | 14 (1.5) | Slovenia | 64 (2.0) | 17 (1.5) | Romania | 59 (2.7) | 15 (1.5) |
| ^{2a} Russian Federation | 84 (1.8) | 14 (1.3) | | | | Colombia | 51 (2.3) | 23 (1.3) |
| Latvia | 82 (1.6) | 12 (2.5) | | | | ^{2a} Greece | 50 (2.9) | 14 (1.5) |
| Hong Kong, SAR | 81 (1.6) | 29 (1.6) | | | | Argentina | 49 (2.5) | 16 (1.2) |
| France | 79 (1.5) | 9 (0.9) | | | | Macedonia, Rep. of | 45 (2.6) | 23 (1.8) |
| Bulgaria | 78 (2.0) | 14 (1.4) | | | | Kuwait | 39 (1.7) | 28 (1.3) |
| [†] Lithuania | 78 (1.8) | 19 (1.7) | | | | Iran, Islamic Rep. of | 33 (1.8) | 17 (1.5) |
| Iceland | 74 (1.3) | 17 (1.2) | | | | Turkey | 31 (1.9) | 12 (1.1) |
| ^{†2a} England | 74 (2.1) | 14 (1.4) | | | | [†] Morocco | 29 (3.8) | 18 (2.4) |
| Germany | 73 (1.1) | 16 (1.1) | | | | Belize | 26 (2.3) | 12 (1.5) |
| Hungary | 73 (1.9) | 17 (1.4) | | | | | | |
| ^{2b} Israel | 72 (1.8) | 24 (1.5) | | | | | | |
| Norway | 70 (2.1) | 19 (1.7) | | | | | | |
| [†] Scotland | 70 (2.1) | 17 (1.6) | | | | | | |
| New Zealand | 70 (2.2) | 21 (1.8) | | | | | | |
| Singapore | 69 (1.7) | 14 (1.1) | | | | | | |
| [*] [†] Canada (O,Q) | 69 (1.5) | 15 (0.9) | | | | | | |
| Czech Republic | 69 (2.1) | 12 (1.3) | | | | | | |
| [†] United States | 68 (1.6) | 19 (1.2) | | | | | | |
| [*] Quebec (Canada) | 71 (2.3) | 11 (1.2) | [*] Ontario (Canada) | 68 (2.1) | 16 (1.3) | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Achievement at the Upper Quarter Benchmark

At the Upper Quarter Benchmark, in reading the literary texts students demonstrated that they could make inferences based on different aspects of characters and events, and support the inferences with evidence from the text. In particular, they could make inferences to describe and contrast characters' actions. They also could recognize some text features in literary texts.

As shown in Exhibit 3.17 containing Example Item 13, students at or above the Upper Quarter Benchmark received full credit (2 points) by identifying two pieces of information in the story about the lion and hare from which one could infer the lion's concern for the hare. Similarly, in Example Item 14 (see Exhibit 3.18) students reaching the Upper Quarter Benchmark demonstrated at least satisfactory comprehension (2 out of 3 points) by providing a description of the difference between the lion and the hare. Students reaching the Upper Quarter Benchmarks also would include those demonstrating extensive comprehension (3 points).

Across countries, performance was very similar on these two items about the "Hare" story, with international averages of 47 to 48 percent. On Example Item 13, Hungary had the highest performance with about three-fourths of students answering completely (77%), followed by about two-thirds in Sweden (68%), the Russian Federation (68%), and the Czech Republic (67%). The highest achievement on Example Item 14 was in the three countries where about three-fourths of the students answered satisfactorily or better: Latvia (76%), Lithuania (74%), and Hungary (74%).

Example Item 15 shown in Exhibit 3.19, based on the "Mice" story, asked students for a plausible interpretation of the mice's character. To receive full credit (1 point), students needed to provide a textually-based reason supporting their opinion about whether or not the mice were easy to fool. Even though students reaching the Upper Quarter Benchmark demonstrated understanding by answering acceptably, students in general had some difficulty with this question. While 72 percent of the Swedish students answered acceptably, the next highest performance was by Canada (O,Q) with 62 percent. The international average was 37 percent.

Considering the informational texts, students reaching the Upper Quarter Benchmark showed significant advances compared to their counterparts reaching the Median Benchmark. For example, they demonstrated the ability to make inferences and interpretations based on information across several sentences as well as integrating their own knowledge and experiences. Similar to processing the literary texts, they were able to distinguish some textual features and understand simple metaphors.

As shown in Exhibit 3.20, Example Item 16 is based on the “Pufflings” article. Students at or above the Upper Quarter Benchmark were likely to receive full credit by providing textually-based support to explain why they would or would not have liked to have gone with Halla and her friends to rescue the pufflings. Internationally, 45 percent of students provided full responses. Only in Greece and Cyprus did two-thirds or more of students (67 to 69%) provide such responses.

As shown in Exhibits 3.21 and 3.22, Example Items 17 and 18 based on the “River Trail” leaflet also illustrate the types of inferences made by students at the Upper Quarter Benchmark. In Example Item 17, students received full credit by inferring that the bikes for rent were well maintained because they were regularly serviced and replaced (1 point). In Example Item 18, students received full credit (2 points) by interpreting information in the leaflet about places for a family to visit. Complete responses needed to identify a specific place along the river described in the leaflet and then integrate ideas from students’ own experiences to explain an appropriate activity for the family to enjoy at that place. On average, internationally, the textually-based inference was less difficult for the students (international average of 46%) than the one based on their own experience (international average 37%). The top-performing country on Example Item 17 was Bulgaria (70%); while Sweden (66%), England (65%), and New Zealand (64%) had the highest performance on Example Item 18.

Exhibit 3.16: Description of Upper Quarter PIRLS International Benchmark of Reading**ISC****4th Grade**
PIRLS 2001**Upper Quarter PIRLS Benchmark****Reading for Literary Experience**

Given short stories with one or two episodes of problem/resolution and essentially two central characters, students can:

- Contrast the actions, traits, and feelings of characters (e.g., describes how two characters are different)
- Make inferences to explain relationships between intentions, actions, and events, and give text-based support
- Can begin to recognize the use of some language and textual features (e.g., personification, an abstract message).

Reading to Acquire and Use Information

Given a variety of short informational materials including text, maps, illustrations, diagrams, and photographs organized topically or chronologically, students can:

- Extract specific information that is difficult to locate
- Make inferences based on connections across several sentences
- Provide interpretations based on integrating text-based information and their own knowledge and experiences
- Recognize major purposes and some distinguishing features of different types of texts
- Understand information conveyed by simple metaphors.

PIRLS Reading Scale Score
at the 75th Percentile

570

Exhibit 3.17: Upper Quarter PIRLS International Benchmark – Example Item 13

ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

2 Points: Full Credit Sample Response and Results

7. Write **two** ways in which the lion tried to make the hare feel better at the end of the story.

① 1. He said, "Never mind, little brother. All of us - even I - sometimes fear things we cannot understand"

② 2. He smiled kindly

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Hungary | 77 (1.4) | Cyprus | 52 (2.3) | Turkey | 42 (1.5) |
| Sweden | 68 (1.7) | Germany | 51 (1.4) | Moldova, Rep. of | 39 (2.6) |
| ^{2a} Russian Federation | 68 (2.6) | ^{2a} Greece | 50 (2.7) | Argentina | 30 (2.1) |
| Czech Republic | 67 (2.4) | Bulgaria | 49 (2.0) | Colombia | 29 (2.0) |
| Romania | 61 (2.3) | [†] United States | 48 (2.1) | Kuwait | 27 (2.2) |
| ^{12a} England | 61 (2.0) | International Avg. | 48 (0.3) | Iran, Islamic Rep. of | 22 (1.5) |
| [†] Lithuania | 60 (2.2) | Norway | 47 (2.1) | Hong Kong, SAR | 21 (1.5) |
| Singapore | 59 (1.8) | Macedonia, Rep. of | 46 (2.1) | Belize | 16 (1.8) |
| [†] Scotland | 57 (2.2) | Latvia | 46 (2.4) | [†] Morocco | 12 (1.9) |
| Slovak Republic | 57 (2.1) | Iceland | 44 (2.9) | | |
| ^{2b} Israel | 56 (1.8) | | | | |
| Italy | 56 (2.0) | | | | |
| France | 56 (1.6) | | | | |
| [†] Netherlands | 54 (1.9) | | | | |
| Slovenia | 53 (1.9) | | | | |
| * [†] Canada (O,Q) | 52 (1.6) | | | | |
| New Zealand | 52 (1.8) | | | | |
| | | * Quebec (Canada) | 52 (2.3) | | |
| | | * Ontario (Canada) | 52 (2.2) | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.18: Upper Quarter PIRLS International Benchmark – Example Item 14

ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

2 out of 3 Points: Partial Credit Sample Response and Results

10. You learn what the lion and the hare are like from the things they do in the story. Describe how the lion and the hare are different from each other and what each does that shows this.

③ The lion and hare are different from each other because the hare is timid, shy, and fearful and the lion is brave and cheerful.

Percentage of Students Obtaining at Least Partial Credit

| Country Average Significantly Higher than International Average | | | No Statistically Significant Difference Between Country Average and International Average | | | Country Average Significantly Lower than International Average | | |
|---|-------------------|---------------|---|-------------------|---------------|--|-------------------|---------------|
| | At Least 2 Points | Only 2 Points | | At Least 2 Points | Only 2 Points | | At Least 2 Points | Only 2 Points |
| Latvia | 76 (1.9) | 62 (2.2) | [†] Scotland | 50 (2.1) | 41 (2.0) | ^{2a} Israel | 40 (2.2) | 20 (1.5) |
| [†] Lithuania | 74 (1.8) | 51 (1.7) | Slovak Republic | 50 (2.1) | 41 (2.0) | Norway | 37 (2.4) | 31 (2.1) |
| Hungary | 74 (1.5) | 53 (1.6) | Slovenia | 49 (2.4) | 30 (1.9) | Moldova, Rep. of | 34 (2.4) | 25 (1.8) |
| Hong Kong, SAR | 71 (1.7) | 42 (1.4) | International Avg. | 47 (0.3) | 34 (0.3) | Macedonia, Rep. of | 27 (1.7) | 13 (1.4) |
| ^{2a} Greece | 71 (2.2) | 56 (2.3) | | | | Turkey | 26 (1.9) | 16 (1.3) |
| [†] Netherlands | 70 (2.1) | 57 (2.1) | | | | Iceland | 25 (2.3) | 20 (2.1) |
| ^{2a} Russian Federation | 69 (2.3) | 46 (2.0) | | | | Cyprus | 23 (2.0) | 16 (1.5) |
| ^{†2a} England | 68 (1.9) | 48 (2.0) | | | | Iran, Islamic Rep. of | 16 (1.2) | 13 (1.1) |
| Sweden | 67 (1.8) | 51 (2.0) | | | | Colombia | 14 (1.6) | 13 (1.6) |
| Bulgaria | 66 (2.2) | 32 (2.1) | | | | Argentina | 13 (1.6) | 10 (1.2) |
| Singapore | 64 (2.1) | 47 (1.5) | | | | [†] Morocco | 12 (2.7) | 7 (1.5) |
| * [†] Canada (O,Q) | 60 (1.5) | 47 (1.4) | | | | Kuwait | 11 (1.6) | 11 (1.7) |
| France | 59 (2.0) | 43 (1.8) | | | | Belize | 4 (0.8) | 3 (0.7) |
| [†] United States | 59 (2.4) | 46 (2.3) | | | | | | |
| Romania | 57 (2.3) | 37 (2.5) | | | | | | |
| Czech Republic | 57 (2.0) | 47 (2.0) | | | | | | |
| Italy | 57 (2.1) | 33 (1.9) | | | | | | |
| New Zealand | 55 (2.7) | 42 (2.3) | | | | | | |
| Germany | 52 (1.7) | 39 (1.5) | | | | | | |
| * Quebec (Canada) | 66 (2.2) | 53 (2.0) | | | | | | |
| * Ontario (Canada) | 56 (2.1) | 44 (1.9) | | | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.19: Upper Quarter PIRLS International Benchmark – Example Item 15


ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

1 Point: Full Credit Sample Response and Results

11. Do you think the mice were easy to fool? Give **one** reason why or why not.

 1 No It took two nights to trick them

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 72 (1.5) | Latvia | 41 (2.4) | Germany | 31 (1.5) |
| * ¹ Canada (O,Q) | 62 (1.3) | Romania | 40 (2.4) | Moldova, Rep. of | 30 (1.9) |
| ^{12a} England | 61 (2.0) | ^{2b} Israel | 39 (1.5) | ^{2a} Greece | 29 (2.2) |
| Bulgaria | 55 (1.9) | Norway | 38 (1.9) | Iceland | 26 (1.3) |
| Czech Republic | 55 (2.0) | Italy | 37 (1.7) | Slovak Republic | 26 (1.3) |
| [†] United States | 54 (2.0) | International Avg. | 37 (0.3) | Cyprus | 24 (2.2) |
| Singapore | 50 (1.6) | ^{2a} Russian Federation | 36 (1.7) | Turkey | 19 (1.4) |
| [†] Lithuania | 50 (2.5) | Colombia | 33 (2.4) | Macedonia, Rep. of | 18 (1.7) |
| France | 50 (1.9) | | | Slovenia | 17 (1.5) |
| New Zealand | 49 (2.4) | | | Iran, Islamic Rep. of | 14 (0.9) |
| [†] Netherlands | 48 (1.8) | | | Argentina | 13 (1.3) |
| Hong Kong, SAR | 46 (1.7) | | | [‡] Morocco | 12 (2.4) |
| Hungary | 44 (1.9) | | | Kuwait | 10 (1.1) |
| [†] Scotland | 41 (2.0) | | | Belize | 9 (0.9) |
| * Quebec (Canada) | 64 (2.2) | | | | |
| * Ontario (Canada) | 60 (1.9) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.20: Upper Quarter PIRLS International Benchmark – Example Item 16

ISC
4th Grade
PIRLS 2001

Purpose: Acquire and Use Information

1 Point: Full Credit Sample Response and Results

13. Would *you* like to go and rescue pufflings with Halla and her friends? Use what you have read to help you explain.

① Yes I would like to because it sounds
like an adventure going to find pufflings
in the middle of the night.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| ^{2a} Greece | 69 (2.9) | Kuwait | 50 (2.5) | ^{2a} Russian Federation | 39 (2.5) |
| Cyprus | 67 (2.0) | Germany | 48 (1.3) | Singapore | 36 (1.7) |
| [†] United States | 65 (2.0) | Slovenia | 47 (2.3) | Hungary | 36 (1.5) |
| Romania | 63 (2.0) | ^{2b} Israel | 45 (1.8) | Slovak Republic | 31 (1.8) |
| Macedonia, Rep. of | 63 (2.5) | International Avg. | 45 (0.4) | Turkey | 30 (1.8) |
| Italy | 63 (1.9) | [†] Lithuania | 45 (2.2) | Norway | 28 (1.5) |
| * [†] Canada (O,Q) | 61 (1.4) | Czech Republic | 41 (2.3) | Iceland | 28 (2.8) |
| ^{†2a} England | 61 (2.5) | | | Argentina | 28 (1.9) |
| Hong Kong, SAR | 60 (2.0) | | | Colombia | 19 (1.4) |
| Bulgaria | 56 (2.1) | | | Iran, Islamic Rep. of | 16 (1.2) |
| New Zealand | 56 (2.7) | | | [†] Morocco | 16 (2.9) |
| Latvia | 54 (2.8) | | | Belize | 5 (1.5) |
| [†] Netherlands | 54 (1.7) | | | | |
| Moldova, Rep. of | 54 (2.4) | | | | |
| France | 53 (2.1) | | | | |
| Sweden | 50 (2.0) | | | | |
| [†] Scotland | 50 (1.9) | | | | |
| | | | | | |
| * Ontario (Canada) | 62 (2.1) | | | | |
| * Quebec (Canada) | 60 (2.1) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[†] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.21: Upper Quarter PIRLS International Benchmark – Example Item 17**ISC****4th Grade**
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

7. What information about Zippy bikes tells you that the bikes for hire are in good condition?

① They are replaced every year and regularly serviced

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Bulgaria | 70 (2.0) | Moldova, Rep. of | 51 (2.9) | Hong Kong, SAR | 42 (2.1) |
| ^{2a} Russian Federation | 68 (2.9) | ¹ Lithuania | 48 (2.3) | Slovenia | 40 (2.3) |
| Latvia | 67 (2.3) | New Zealand | 48 (2.2) | ^{2a} Greece | 38 (3.1) |
| Czech Republic | 67 (1.8) | Iceland | 48 (1.4) | Cyprus | 35 (1.9) |
| France | 66 (2.0) | [†] Scotland | 47 (2.0) | Macedonia, Rep. of | 29 (2.0) |
| Italy | 65 (1.9) | ^{2b} Israel | 47 (1.9) | Turkey | 29 (1.6) |
| Sweden | 63 (1.5) | Singapore | 47 (2.1) | Colombia | 29 (1.9) |
| ^{†2a} England | 59 (2.1) | International Avg. | 46 (0.4) | [†] Morocco | 25 (3.5) |
| * ¹ Canada (O,Q) | 58 (1.5) | [†] Netherlands | 44 (2.0) | Argentina | 25 (2.3) |
| Hungary | 58 (1.7) | Norway | 43 (2.2) | Kuwait | 25 (1.7) |
| Germany | 54 (1.5) | | | Iran, Islamic Rep. of | 20 (1.4) |
| Romania | 53 (2.8) | | | Belize | 14 (1.6) |
| Slovak Republic | 52 (1.7) | | | | |
| [†] United States | 51 (2.3) | | | | |
| * Quebec (Canada) | 69 (1.8) | | | | |
| * Ontario (Canada) | 52 (2.1) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.22: Upper Quarter PIRLS International Benchmark – Example Item 18

ISC
4th Grade
PIRLS 2001

Purpose: Acquire and Use Information

2 Points: Full Credit Sample Response and Results

9. Which place on the River Trail could the family visit? Explain why they might like to go there.

② They could visit Grundorf castle.
There are a lot of deers there and
the children may like to see them.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 66 (1.9) | Romania | 41 (2.3) | Cyprus | 33 (1.9) |
| ^{12a} England | 65 (2.3) | ^{2b} Israel | 38 (1.8) | ^{2a} Russian Federation | 33 (1.7) |
| New Zealand | 64 (1.9) | International Avg. | 37 (0.3) | Slovak Republic | 32 (1.8) |
| [†] United States | 59 (1.9) | Italy | 35 (1.7) | Hong Kong, SAR | 32 (1.9) |
| * ¹ Canada (O,Q) | 59 (1.5) | | | Latvia | 31 (2.3) |
| Singapore | 57 (2.0) | | | Turkey | 28 (1.5) |
| [†] Netherlands | 54 (2.2) | | | Hungary | 26 (1.4) |
| Germany | 54 (1.7) | | | Slovenia | 25 (2.0) |
| [†] Scotland | 53 (2.3) | | | Moldova, Rep. of | 23 (1.7) |
| Czech Republic | 50 (2.0) | | | Argentina | 20 (1.8) |
| France | 50 (1.7) | | | Colombia | 17 (1.7) |
| Bulgaria | 48 (2.0) | | | Macedonia, Rep. of | 13 (1.4) |
| ^{2a} Greece | 43 (3.0) | | | Iran, Islamic Rep. of | 10 (1.0) |
| Norway | 43 (2.2) | | | [†] Morocco | 10 (2.1) |
| Iceland | 42 (1.4) | | | Kuwait | 8 (1.1) |
| ¹ Lithuania | 42 (2.2) | | | Belize | 7 (0.8) |
| * Ontario (Canada) | 64 (1.9) | | | | |
| * Quebec (Canada) | 51 (2.1) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Achievement at the Top 10% Benchmark

Exhibit 3.23 describes performance at the Top 10% Benchmark for the literary and informational texts in PIRLS 2001. The hallmark of performance at this level was students' demonstrating their ability to integrate ideas and information. Students reaching this level demonstrated their understanding of the short stories in the assessment by providing interpretations about characters' feelings and behaviors with textually-based support. They also integrated ideas across the text to explain the broader significance or theme of the story. They demonstrated their understanding of the informational materials by integrating information across various different sections and types of materials and successfully applying it to real-world situations.

For the literary texts, Example Item 19 presented in Exhibit 3.24 required an extended response contrasting the lion and the hare. To receive full credit on this 3-point item, the students needed to integrate ideas from across the text to fully support an interpretation of the difference between the two characters. More specifically, the students needed to describe a contrasting character trait and provide a specific action of each character to support that trait. As can be seen, with an international average of 14 percent, receiving full credit on this task was very difficult for fourth-grade students. The highest performance was in Bulgaria, where about one-third (34%) of students answered fully.

Exhibits 3.25 and 3.26 present Example Items 20 and 21, based on the "Mice" story. Example Item 20 asked students to interpret Labon's reaction at one point in the story. To receive full credit (1 point), the response needed to communicate that Labon was not surprised by the empty traps. With an international average of 31 percent, this question was somewhat less difficult for students than Example Item 19, requiring a comparison between the lion and hare characters. More than half the students in Bulgaria and England (57 and 51%, respectively) answered acceptably.

Example Item 21 asked students to explain what Labon was like, based on his actions. This question was difficult even for students achieving at the Top 10% Benchmark. They were likely to respond at the satisfactory level (2 points out of 3) rather than at the extensive level, although students receiving

full credit also would have reached the Top 10% Benchmark. More specifically, to receive at least 2 out of 3 points, the response described one plausible character trait and one action as an example of the trait. In general, not very many students across countries provided satisfactory or extensive responses. The international average was 30 percent. The two top-performing countries were England (56%) and Sweden (55%).

For the informational texts, two items from the “Pufflings” article illustrate students’ success in integrating information at the Top 10% Benchmark. They are Example Item 22 and Example Item 23, shown in Exhibits 3.27 and 3.28, respectively. Example Item 22 asked why it needed to be daylight when the children released the pufflings. Full credit (1 point) required making inferences from the text to explain that pufflings can become confused at night or see their target more clearly in daylight. Example Item 23 also required information beyond that found in the text, asking students to integrate ideas from the text and their own experiences to explain how Halla might have felt after setting the pufflings free. Students at the Top 10% Benchmark received full credit (2 points), identifying two different feelings and providing an appropriate explanation for each feeling. Interestingly, the international average for both items was 25 percent, but the range was broader on the second one. The best performance on Example Item 22 was in Hungary, Latvia, and Iceland (37 to 38%), but in answering Example Item 23, more than half the students (51 to 53%) in England, the United States, and Canada (O,Q) responded completely about how Halla might have felt.

Example Item 24, presented in Exhibit 3.29, was based on the “River Trail” leaflet. It is a task based in a real-world situation, asking students to integrate information from across the leaflet to identify the rental bike equipment appropriate for an entire family of four with two children, one being a 3-year-old. Fourth-grade students reaching the Top 10% Benchmark were likely to provide responses receiving full credit. In general, however, with an international average of only 26 percent providing a complete response, this item was difficult for students. Sweden (58%) and The Netherlands (53%) were the only two countries where the majority of students answered correctly.

Exhibit 3.23: Description of Top 10% PIRLS International Benchmark of Reading Achievement

ISC

4th Grade
PIRLS 2001

Top 10% PIRLS Benchmark

Reading for Literary Experience

Given short stories with one or two episodes of problem/resolution and essentially two central characters, students can:

- Integrate ideas across a text to provide interpretations of a character’s traits, intentions, and feelings, and give text-based support
- Integrate ideas across the text to explain the broader significance or theme of the story.

Reading to Acquire and Use Information

Given a variety of short informational materials including text, maps, illustrations, diagrams, and photographs organized topically or chronologically, students can:

- Integrate information from various texts and their own knowledge, and apply it to situations that might be encountered in the real world.

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

PIRLS Reading Scale Score
at the 90th Percentile

615

Exhibit 3.24: Top 10% PIRLS International Benchmark – Example Item 19

ISC
4th Grade
PIRLS 2001

Purpose: Literary Experience

3 Points: Full Credit Sample Response and Results

10. You learn what the lion and the hare are like from the things they do in the story. Describe how the lion and the hare are different from each other and what each does that shows this.

③ The hare is really worried and foolish and the lion is smart and not afraid of a lot of things. The lion showed him what the earthquake was the hare ran away from the fake "earthquake".

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Bulgaria | 34 (1.9) | Sweden | 16 (1.4) | Turkey | 11 (1.2) |
| Hong Kong, SAR | 29 (1.9) | ^{2a} Greece | 16 (1.7) | Czech Republic | 10 (1.2) |
| Italy | 23 (1.7) | Latvia | 14 (1.5) | [†] Scotland | 10 (1.4) |
| ¹ Lithuania | 23 (1.6) | Macedonia, Rep. of | 14 (1.2) | Moldova, Rep. of | 10 (1.5) |
| ^{2a} Russian Federation | 23 (1.7) | [†] Netherlands | 14 (1.5) | Slovak Republic | 9 (1.1) |
| Hungary | 20 (1.3) | Germany | 14 (1.1) | Cyprus | 7 (0.9) |
| ^{12a} England | 20 (1.5) | International Avg. | 14 (0.2) | Norway | 7 (1.1) |
| Romania | 20 (2.4) | New Zealand | 13 (1.6) | [‡] Morocco | 5 (2.2) |
| ^{2b} Israel | 20 (1.4) | * ¹ Canada (O,Q) | 13 (1.0) | Iceland | 5 (1.0) |
| Slovenia | 19 (1.6) | [†] United States | 13 (1.3) | Argentina | 4 (0.8) |
| Singapore | 17 (1.5) | | | Iran, Islamic Rep. of | 3 (0.6) |
| France | 17 (1.3) | | | Colombia | 2 (0.3) |
| | | | | Kuwait | 1 (0.4) |
| | | | | Belize | 1 (0.4) |
| | | * Quebec (Canada) | 13 (1.3) | | |
| | | * Ontario (Canada) | 13 (1.3) | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.


^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.25: Top 10% PIRLS International Benchmark – Example Item 20**ISC****4th Grade**
PIRLS 2001**Purpose: Literary Experience****1 Point: Full Credit Sample Response and Results**

4. Why did Labon smile when he saw there were no mice in the traps?

 Labon knew that the mice did not know his trick yet.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Bulgaria | 57 (1.9) | ^{2a} Greece | 34 (2.5) | Germany | 28 (1.4) |
| ^{12a} England | 51 (2.2) | Hungary | 34 (2.0) | Macedonia, Rep. of | 27 (1.3) |
| * ¹ Canada (O,Q) | 48 (1.5) | [†] Scotland | 34 (2.4) | Romania | 27 (2.0) |
| [†] United States | 47 (2.3) | Cyprus | 33 (1.8) | Slovak Republic | 26 (1.8) |
| Iceland | 46 (1.6) | International Avg. | 31 (0.3) | Moldova, Rep. of | 22 (1.4) |
| New Zealand | 45 (2.6) | Czech Republic | 30 (2.1) | ^{2a} Russian Federation | 21 (1.9) |
| [†] Netherlands | 43 (1.5) | | | Slovenia | 21 (1.5) |
| ^{2b} Israel | 41 (1.6) | | | Turkey | 15 (1.2) |
| Singapore | 41 (1.6) | | | [†] Morocco | 15 (2.6) |
| ¹ Lithuania | 41 (2.4) | | | Argentina | 15 (1.6) |
| Hong Kong, SAR | 39 (1.9) | | | Colombia | 11 (1.1) |
| Latvia | 38 (2.0) | | | Iran, Islamic Rep. of | 9 (0.8) |
| Norway | 37 (2.1) | | | Kuwait | 8 (0.9) |
| Italy | 36 (1.8) | | | Belize | 6 (0.9) |
| Sweden | 36 (1.5) | | | | |
| France | 35 (1.9) | | | | |
| * Ontario (Canada) | 51 (1.9) | | | | |
| * Quebec (Canada) | 43 (2.1) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.26: Top 10% PIRLS International Benchmark – Example Item 21


ISC

4th Grade
PIRLS 2001

Purpose: Literary Experience

2 out of 3 Points: Partial Credit Sample Response and Results

12. You learn what Labon is like from the things he does. Describe what he is like and give **two** examples of what he does that show this.

 He was smart. He thought of a good way to trick the mice.

Percentage of Students Obtaining at Least Partial Credit

| Country Average Significantly Higher than International Average | | | No Statistically Significant Difference Between Country Average and International Average | | | Country Average Significantly Lower than International Average | | |
|---|-------------------|---------------|---|-------------------|---------------|--|-------------------|---------------|
| | At Least 2 Points | Only 2 Points | | At Least 2 Points | Only 2 Points | | At Least 2 Points | Only 2 Points |
| ^{12a} England | 56 (2.3) | 30 (2.0) | Cyprus | 33 (2.2) | 23 (1.8) | Hong Kong, SAR | 25 (1.5) | 17 (1.3) |
| Sweden | 55 (1.6) | 29 (1.5) | Latvia | 32 (1.9) | 24 (1.5) | Iceland | 25 (1.6) | 19 (1.4) |
| Bulgaria | 51 (2.0) | 24 (1.7) | ^{2a} Russian Federation | 31 (2.2) | 25 (1.8) | Moldova, Rep. of | 24 (1.9) | 18 (1.5) |
| Hungary | 50 (1.8) | 33 (1.7) | Romania | 31 (2.5) | 18 (2.0) | Turkey | 24 (1.6) | 14 (1.3) |
| [†] United States | 49 (2.4) | 28 (1.8) | Germany | 30 (1.2) | 23 (1.1) | France | 21 (1.6) | 14 (1.4) |
| ^{2a} Greece | 49 (2.7) | 34 (2.2) | International Avg. | 30 (0.3) | 20 (0.3) | Slovenia | 20 (1.3) | 17 (1.3) |
| * [†] Canada (O,Q) | 45 (1.6) | 28 (1.3) | [†] Scotland | 30 (2.6) | 23 (2.1) | Iran, Islamic Rep. of | 19 (1.4) | 16 (1.1) |
| Singapore | 44 (2.0) | 30 (1.4) | ^{2b} Israel | 29 (1.6) | 16 (1.4) | Argentina | 16 (1.5) | 12 (1.3) |
| [†] Lithuania | 42 (2.3) | 30 (2.2) | Norway | 29 (1.9) | 19 (1.4) | Slovak Republic | 15 (1.2) | 13 (1.2) |
| New Zealand | 39 (2.5) | 25 (2.2) | Czech Republic | 27 (2.1) | 20 (1.7) | Macedonia, Rep. of | 13 (1.4) | 10 (1.2) |
| Italy | 35 (2.0) | 25 (1.7) | | | | [†] Morocco | 10 (2.3) | 4 (0.8) |
| [†] Netherlands | 35 (1.7) | 23 (1.3) | | | | Colombia | 7 (1.1) | 5 (0.9) |
| | | | | | | Belize | 4 (0.9) | 3 (0.6) |
| | | | | | | Kuwait | 4 (0.4) | 3 (0.4) |
| * Ontario (Canada) | 48 (2.2) | 31 (1.9) | | | | | | |
| * Quebec (Canada) | 39 (2.2) | 24 (1.7) | | | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.


^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.27: Top 10% PIRLS International Benchmark – Example Item 22**ISC****4th Grade**
PIRLS 2001**Purpose: Acquire and Use Information****1 Point: Full Credit Sample Response and Results**

10. Why does it need to be daylight when the children release the pufflings? Use information from the article to explain.

 1 It has to be daylight so that the pufflings don't get confused again by the lights in the village.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Hungary | 38 (1.8) | Romania | 29 (2.4) | Turkey | 20 (1.4) |
| Latvia | 37 (2.3) | Kuwait | 28 (2.0) | Moldova, Rep. of | 19 (2.5) |
| Iceland | 37 (2.4) | Italy | 28 (2.0) | Norway | 18 (1.8) |
| ^{2a} Russian Federation | 35 (2.5) | New Zealand | 27 (1.8) | [†] Scotland | 17 (1.5) |
| Czech Republic | 34 (2.2) | [†] Netherlands | 25 (1.5) | Slovenia | 17 (1.2) |
| ¹ Lithuania | 34 (1.9) | International Avg. | 25 (0.3) | Cyprus | 16 (1.9) |
| Slovak Republic | 33 (1.6) | Singapore | 24 (1.6) | Colombia | 15 (1.6) |
| Germany | 33 (1.2) | France | 24 (1.7) | Macedonia, Rep. of | 13 (1.7) |
| ^{2b} Israel | 31 (1.9) | Bulgaria | 23 (1.9) | Argentina | 12 (1.4) |
| ^{2a} Greece | 31 (2.3) | [†] United States | 22 (2.0) | [†] Morocco | 10 (2.4) |
| * ¹ Canada (O,Q) | 29 (1.6) | | | Iran, Islamic Rep. of | 9 (1.2) |
| ^{12a} England | 29 (1.6) | | | Belize | 7 (1.7) |
| Hong Kong, SAR | 28 (1.4) | | | | |
| Sweden | 28 (1.4) | | | | |
| * Ontario (Canada) | 35 (2.2) | | | * Quebec (Canada) | 20 (2.0) |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.28: Top 10% PIRLS International Benchmark – Example Item 23

ISC

4th Grade
PIRLS 2001

Purpose: Acquire and Use Information

2 Points: Full Credit Sample Response and Results

12. Write **two** different feelings Halla might have after she has set the pufflings free. Explain why she might have each feeling.

- ① 1. She might be happy that she helped a puffling in need and
- ② 2. Sad that the night of the pufflings are over because they are fun.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| ^{12a} England | 53 (2.4) | Romania | 28 (2.4) | Norway | 22 (1.7) |
| [†] United States | 53 (2.1) | Czech Republic | 27 (1.7) | Hong Kong, SAR | 20 (1.5) |
| [*] [†] Canada (O,Q) | 51 (1.8) | Moldova, Rep. of | 27 (2.8) | France | 16 (1.5) |
| New Zealand | 46 (2.4) | ^{2a} Russian Federation | 25 (1.9) | Iceland | 16 (1.7) |
| [†] Scotland | 44 (2.3) | Sweden | 25 (1.6) | Macedonia, Rep. of | 15 (1.6) |
| Germany | 38 (1.4) | International Avg. | 25 (0.3) | Slovenia | 14 (1.6) |
| Singapore | 33 (2.0) | Hungary | 25 (1.5) | Kuwait | 13 (2.0) |
| ^{2b} Israel | 32 (1.7) | Cyprus | 24 (2.0) | Argentina | 10 (1.5) |
| Latvia | 32 (2.3) | Slovak Republic | 23 (1.4) | Colombia | 9 (1.4) |
| Bulgaria | 32 (2.1) | [†] Lithuania | 23 (2.0) | Turkey | 6 (0.9) |
| [†] Netherlands | 31 (2.0) | | | Iran, Islamic Rep. of | 4 (0.6) |
| ^{2a} Greece | 31 (2.2) | | | [‡] Morocco | 3 (0.5) |
| Italy | 31 (1.7) | | | Belize | 1 (0.4) |
| [*] Ontario (Canada) | 57 (2.4) | | | | |
| [*] Quebec (Canada) | 42 (2.2) | | | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.


^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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

Exhibit 3.29: Top 10% PIRLS International Benchmark – Example Item 24**ISC** 4th Grade
PIRLS 2001**Purpose: Acquire and Use Information****2 Points: Full Credit Sample Response and Results**

8. Which bikes would the family need? Use what you have read in the leaflet to answer.

 They would need a child seat attached to another bike and a tandem.

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

Percentage of Students Obtaining Full Credit

| Country Average Significantly Higher than International Average | | No Statistically Significant Difference Between Country Average and International Average | | Country Average Significantly Lower than International Average | |
|---|----------|---|----------|--|----------|
| Sweden | 58 (1.6) | [†] United States | 29 (2.4) | Slovenia | 22 (1.5) |
| [†] Netherlands | 53 (1.9) | ^{2b} Israel | 29 (1.7) | Romania | 20 (2.5) |
| Germany | 43 (1.4) | Cyprus | 27 (1.9) | Hong Kong, SAR | 17 (1.5) |
| France | 41 (1.8) | International Avg. | 26 (0.3) | Singapore | 17 (1.3) |
| Norway | 39 (2.5) | Italy | 26 (1.7) | ^{2a} Greece | 15 (2.2) |
| ^{12a} England | 39 (2.0) | ^{2a} Russian Federation | 23 (2.1) | Moldova, Rep. of | 12 (1.5) |
| [†] Lithuania | 38 (2.4) | | | [†] Morocco | 12 (2.6) |
| Latvia | 36 (2.1) | | | Argentina | 12 (2.0) |
| Czech Republic | 35 (2.0) | | | Macedonia, Rep. of | 11 (1.1) |
| Iceland | 35 (1.5) | | | Turkey | 11 (1.4) |
| New Zealand | 34 (2.2) | | | Kuwait | 9 (0.7) |
| Hungary | 34 (1.5) | | | Colombia | 5 (0.8) |
| Bulgaria | 33 (1.9) | | | Belize | 3 (0.5) |
| * [†] Canada (O,Q) | 32 (1.5) | | | Iran, Islamic Rep. of | 1 (0.3) |
| [†] Scotland | 32 (2.0) | | | | |
| Slovak Republic | 31 (1.9) | | | | |
| | | | | | |
| * Quebec (Canada) | 37 (2.0) | * Ontario (Canada) | 29 (2.2) | | |

* Canada is represented by the provinces of Ontario and Quebec only. The international average does not include the results from these provinces separately.

[†] Met guidelines for sample participation rates only after replacement schools were included (see Exhibit A.7).

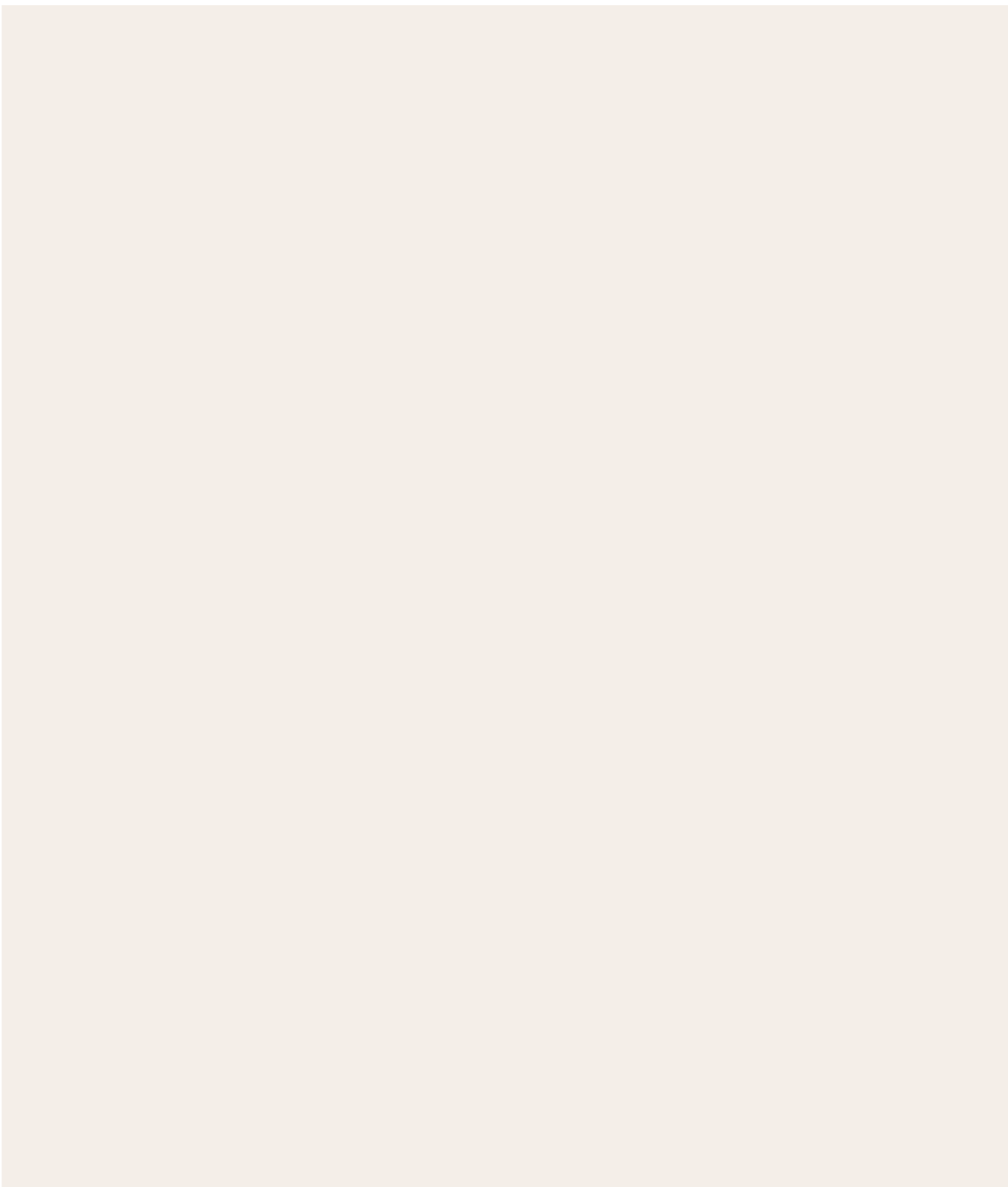
[‡] Nearly satisfying guidelines for sample participation rates after replacement schools were included (see Exhibit A.7).

¹ National Desired Population does not cover all of International Desired Population. Because coverage falls below 65%, Canada is annotated Canada (O, Q) for the provinces of Ontario and Quebec only.

^{2a} National Defined Population covers less than 95% of National Desired Population (see Exhibit A.4).

^{2b} National Defined Population covers less than 80% of National Desired Population (see Exhibit A.4).

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





Chapter 4

Literacy-Related Activities in the Home

Although formal instruction in reading is a school activity, there is little doubt that the foundation for future literacy is laid in the early years, and considerable evidence that exposure to literacy activities from an early age is a key element of this foundation. PIRLS collected information from parents about their child's experiences in learning to read, about their own reading, and about literacy resources in the home.

**Parents generally reported
a fairly high level of
engagement with their
child in preschool
literacy activities.**

PIRLS also asked the fourth-grade students themselves about their reading activities both at home and in school. Chapter 4 presents parents' and students' responses to a subset of these questions. More specifically, information

is provided about activities fostering literacy before the child began school, the language spoken in the home, literacy resources in the home, and aspects of parents' reading.

The parents' data were collected via a questionnaire in which PIRLS asked the parents or primary caregivers of each child participating in the PIRLS assessment to provide information about their child's experiences in learning to read.¹

Because the sampling for the parents' questionnaires was based on participating students, the parents are representative of parents of fourth-grade students. It is important to note that when information from the parents' questionnaire is being reported, the student is always the unit of analysis. That is, the data shown are the percentages of students whose parents reported on various activities or characteristics. Using the student as the unit of analysis makes it possible to describe students' early literacy experiences and is consistent with the PIRLS goals of providing information about the educational contexts and performance of students.

For reporting purposes, the information provided by parents is tied directly to the students tested. Sometimes, however, parents did not complete the questionnaire assigned to them, so most countries had some percentage of students for whom no parents' questionnaire information is available. The exhibits in this chapter have special notations on this point. For a country where parent responses are available for 70 to 84 percent of students, an "r" is included next to its data. Where parent responses are available for 50 to 69 percent of students, an "s" is included. Where parent responses are available for less than 50 percent, an "x" replaces the data.

In an effort to summarize this information concisely and focus attention on educationally-relevant support and practice, PIRLS sometimes has combined information from individual questions to form an index that is

¹ The PIRLS *Learning to Read* survey was completed by parents of fourth-grade students in all PIRLS countries with the exception of Morocco and the United States.

more global and reliable than the component questions (e.g., early home literacy activities). According to their responses, students were placed in a “high,” “medium,” or “low” category. Cutoff points were established so that the high level of an index corresponds to conditions or activities generally associated with good educational practice and high reading achievement. For each index, the percentages of students in each category are presented in relation to their reading achievement.

What Activities Fostering Literacy Did Parents Engage in with Their Child?

To examine early literacy experiences, PIRLS asked parents how often they (or someone else in the home) engaged in a range of activities with their child before the child began primary school. The Index of Early Home Literacy Activities summarizes parents’ responses to six of these activities:

- Read books
- Tell stories
- Sing songs
- Play with alphabet toys (e.g., blocks with letters of the alphabet)
- Play word games
- Read aloud signs and labels.

Responses about each activity were on a three-point scale – Often, Sometimes, and Never or Almost Never. To construct the index, parents’ responses were averaged across the six activities and then students were assigned to one of three categories (high, medium, or low) on the basis of their parents’ average responses. Students in the high category had parents who reported often engaging in the six activities, on average; whereas those in the low category never or almost never did so. Students in the medium category had parents reporting in between these extremes.

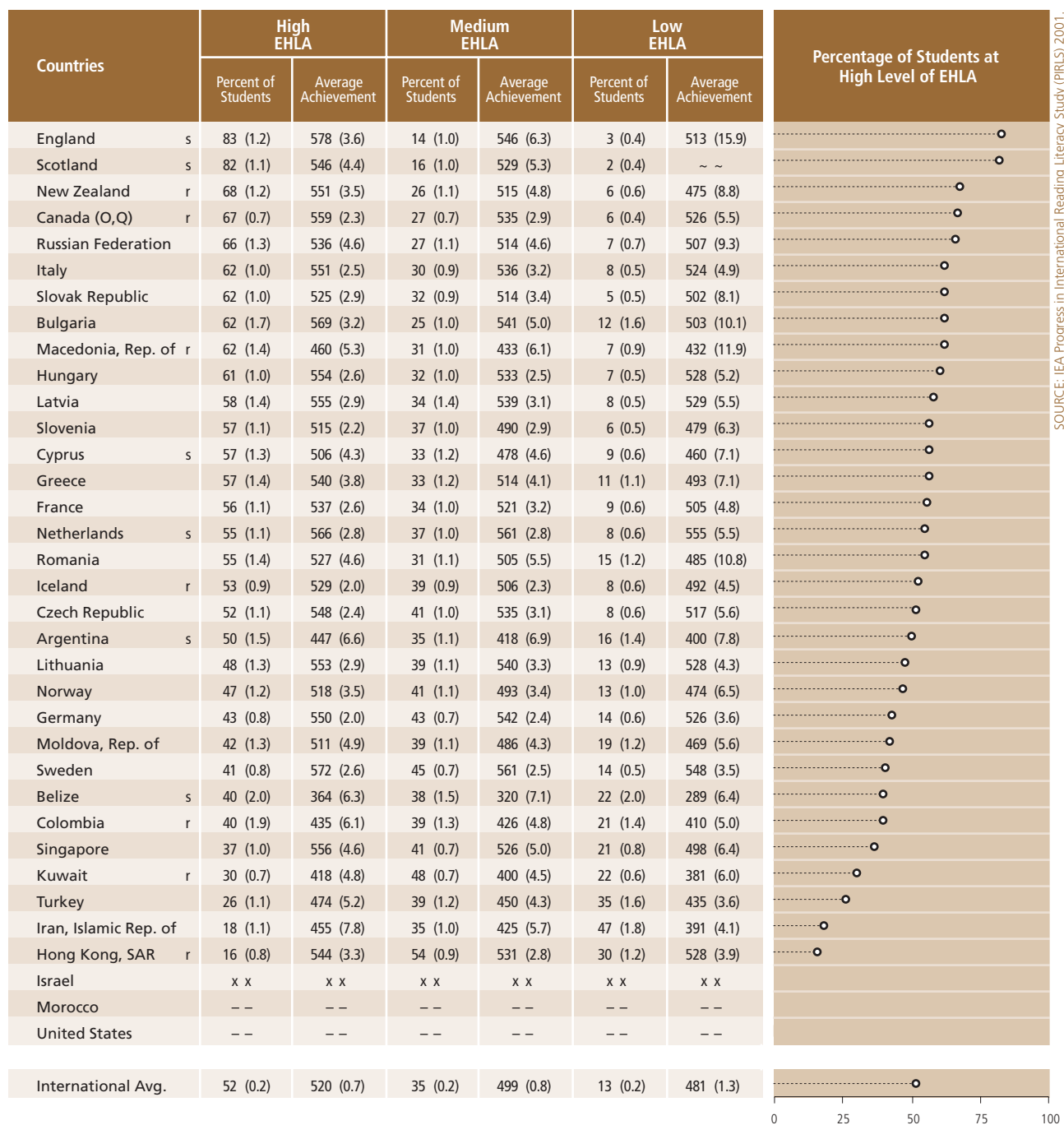
Exhibit 4.1 presents the percentage of students at each level of the index for each country, together with the average reading achievement for those students. Standard errors also are shown. Countries are ordered by the percentage of students at the high level of the index, which is also displayed graphically for each country at the right hand side of the exhibit. The international average across all countries is shown at the bottom of each column.

Parents generally reported a fairly high level of engagement with their child in preschool literacy activities, with more than half (52%) of students in the high category of the index, on average, across all countries. Highest levels of engagement were reported in England and Scotland, where more than 80 percent of students had parents reporting often reading books, telling stories, singing songs, playing with alphabet toys, playing word games, and reading aloud signs and labels with their child before the child began school. Among the countries where parents reported lower levels of engagement were Turkey, Iran, and Hong Kong, with 30 percent or more of students in the low category, where parents reported never or almost never doing these activities with them before they began school.

Although the countries with the highest average reading achievement were not necessarily those with the highest percentages of students in the high category of the Index of Early Home Literacy Activities (Sweden, the highest performing country, had just 41%; and The Netherlands, the next highest, had 55%), there was a positive relationship between engaging in early literacy activities and performance on the PIRLS reading assessment in every country. On average, internationally, students in the high index category enjoyed a 20-point advantage in reading performance over their peers in the medium category, who in turn scored about 20 points above the students in the low category. Countries where the students in the high category had the greatest advantage over those in the medium category (30 points or more) included England, New Zealand, Belize, Singapore, and Iran.

Exhibit 4.2 provides more information on how often parents read books to their child before the child began school, one of the key elements of the Index of Early Home Literacy Activities. Although the pattern of results is generally similar to the previous exhibit, with just over half the students (51%)

Exhibit 4.1: Index of Early Home Literacy Activities (EHLA)

ISC
4th Grade
PIRLS 2001

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

Index of Early Home Literacy Activities (EHLA)

Based on parents' responses to the frequency of the following activities they engaged in with their child prior to entry into primary school: read books; tell stories; sing songs; play with alphabet toys (e.g., blocks with letters of the alphabet); play word games; or read aloud signs and labels. Average is

computed across the 6 items based on a 3-point scale: Never or almost never = 1, Sometimes = 2, and Often = 3. High level indicates an average of greater than 2.33 through 3. Medium level indicates an average of 1.67 through 2.33. Low level indicates an average of 1 to less than 1.67.

() 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 4.2: Parents Read Books with Their Children Before the Children Began Primary School
ISC 4th Grade
PIRLS 2001

| Countries | | Often | | Sometimes | | Never or Almost Never | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|-----------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 35 (1.2) | 452 (7.4) | 53 (1.4) | 422 (6.1) | 11 (1.0) | 391 (8.1) |
| Belize | s | 36 (2.0) | 359 (7.3) | 52 (1.4) | 319 (6.0) | 11 (1.2) | 285 (8.5) |
| Bulgaria | | 51 (1.5) | 576 (3.2) | 41 (1.3) | 537 (4.2) | 8 (1.3) | 497 (10.9) |
| Canada (O,Q) | r | 68 (0.9) | 562 (2.2) | 30 (0.9) | 525 (2.9) | 2 (0.2) | ~ ~ |
| Colombia | r | 27 (1.5) | 427 (6.6) | 59 (1.5) | 427 (4.4) | 13 (1.2) | 413 (6.3) |
| Cyprus | s | 48 (1.3) | 515 (4.7) | 47 (1.2) | 475 (3.8) | 5 (0.5) | 443 (11.2) |
| Czech Republic | | 62 (1.2) | 553 (2.5) | 36 (1.1) | 520 (3.4) | 2 (0.3) | ~ ~ |
| England | s | 82 (1.1) | 581 (3.6) | 17 (1.0) | 533 (5.2) | 1 (0.1) | ~ ~ |
| France | | 57 (1.3) | 547 (2.4) | 39 (1.2) | 503 (3.1) | 4 (0.3) | 505 (5.2) |
| Germany | | 57 (1.0) | 561 (1.8) | 36 (0.9) | 522 (2.1) | 7 (0.4) | 508 (5.0) |
| Greece | | 49 (1.5) | 547 (4.2) | 39 (1.1) | 510 (3.6) | 12 (1.0) | 496 (5.8) |
| Hong Kong, SAR | | 21 (0.9) | 546 (3.3) | 66 (0.8) | 525 (3.0) | 12 (0.8) | 526 (4.7) |
| Hungary | | 59 (1.1) | 560 (2.4) | 37 (1.1) | 526 (2.3) | 4 (0.4) | 523 (7.2) |
| Iceland | r | 82 (0.7) | 524 (1.5) | 18 (0.7) | 482 (2.8) | 0 (0.1) | ~ ~ |
| Iran, Islamic Rep. of | | 22 (1.4) | 424 (8.4) | 50 (1.6) | 430 (4.3) | 28 (1.9) | 379 (5.5) |
| Israel | | x x | x x | x x | x x | x x | x x |
| Italy | | 37 (1.1) | 567 (2.9) | 50 (1.0) | 531 (2.6) | 13 (0.6) | 528 (4.9) |
| Kuwait | r | 17 (0.8) | 413 (5.5) | 61 (0.9) | 406 (4.2) | 23 (0.8) | 379 (6.2) |
| Latvia | | 56 (1.3) | 559 (3.0) | 42 (1.3) | 532 (2.5) | 2 (0.3) | ~ ~ |
| Lithuania | | 45 (1.4) | 560 (3.1) | 51 (1.3) | 533 (2.9) | 5 (0.4) | 518 (6.4) |
| Macedonia, Rep. of | r | 44 (1.3) | 455 (6.2) | 51 (1.3) | 446 (5.5) | 5 (1.0) | 436 (17.2) |
| Moldova, Rep. of | | 38 (1.4) | 514 (5.0) | 53 (1.2) | 482 (4.0) | 9 (0.8) | 463 (8.5) |
| Morocco | | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 70 (1.3) | 570 (2.3) | 27 (1.3) | 546 (3.8) | 3 (0.4) | 551 (8.2) |
| New Zealand | r | 76 (1.1) | 555 (3.4) | 23 (1.1) | 485 (4.0) | 1 (0.3) | ~ ~ |
| Norway | | 70 (1.1) | 515 (3.1) | 29 (1.0) | 474 (4.2) | 1 (0.3) | ~ ~ |
| Romania | | 42 (1.4) | 531 (5.1) | 51 (1.5) | 505 (5.8) | 7 (0.8) | 473 (12.3) |
| Russian Federation | | 61 (1.4) | 540 (4.2) | 36 (1.4) | 511 (5.4) | 2 (0.5) | ~ ~ |
| Scotland | s | 79 (1.3) | 553 (3.8) | 21 (1.3) | 503 (6.8) | 1 (0.2) | ~ ~ |
| Singapore | | 36 (1.2) | 561 (4.9) | 57 (1.0) | 518 (4.9) | 7 (0.5) | 472 (9.0) |
| Slovak Republic | | 57 (1.1) | 535 (2.8) | 41 (1.0) | 503 (3.1) | 2 (0.3) | ~ ~ |
| Slovenia | | 51 (1.2) | 524 (2.4) | 47 (1.1) | 483 (2.6) | 2 (0.2) | ~ ~ |
| Sweden | | 70 (1.0) | 573 (2.2) | 29 (0.9) | 543 (2.9) | 2 (0.2) | ~ ~ |
| Turkey | | 22 (1.1) | 452 (6.4) | 53 (1.4) | 456 (4.0) | 25 (1.4) | 437 (4.5) |
| United States | | -- | -- | -- | -- | -- | -- |
| International Avg. | | 51 (0.2) | 522 (0.8) | 42 (0.2) | 491 (0.7) | 7 (0.1) | 461 (2.4) |

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

Background data provided by parents.

() 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.

being read to often, on average, there were a number of countries where reading books was more common than the other activities that make up the index. In addition to England, Iceland, and Scotland, countries where 70 percent or more of students had parents reporting that they often read books to their child included The Netherlands, New Zealand, Norway, and Sweden. Also, the association between often having been read a book and high reading performance was more clear-cut than with the index, with a reading achievement difference of more than 30 points, on average, across countries, between students who sometimes read books with their parents and those who did so often.

Whereas the traditional parent-child activity of enjoying a book together was quite common in most countries, parents reported far less involvement with newer forms of literacy activities. Almost 80 percent of students, on average, had parents who reported never or almost never doing reading activities on the computer with them before they reached school-going age (see Exhibit 4.3). Only in Canada (O,Q) and France were there as many as 10 percent of students with parents reporting often using the computer for reading activities with their child. There was no clear relationship between doing reading activities on the computer and performance on the PIRLS reading assessment. Unlike the book reading, this activity was not part of the Index of Early Home Literacy Activities.

What Language Do Students Speak at Home?

Although there may be some benefits to being multilingual, students who always speak a language at home different from the language in school may be at a disadvantage in some learning situations, particularly in the early grades, when reading is a focus of instruction. Exhibit 4.4 shows students' reports of how often they spoke the language of the PIRLS test at home in relation to their reading performance. Most students (79% on average, internationally) reported always or almost always speaking the language of the test at home, but there were significant percentages who reported sometimes (16% on average) or never (6% on average) speaking it. In contrast to the general picture, less than half of students in Belize, Hong Kong, Morocco, and Singapore reported always speaking the PIRLS language at home, and just over half in Iran and Kuwait.

Exhibit 4.3: Parents Did Early Reading Activities on the Computer with Their Children
ISC 4th Grade
PIRLS 2001

| Countries | | Often | | Sometimes | | Never or Almost Never | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|-----------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 6 (0.7) | 452 (8.6) | 10 (1.1) | 459 (9.2) | 84 (1.6) | 428 (6.1) |
| Belize | s | 5 (0.7) | 368 (14.5) | 9 (1.3) | 376 (11.9) | 86 (1.9) | 321 (5.3) |
| Bulgaria | | 4 (0.4) | 564 (8.3) | 12 (0.6) | 554 (4.7) | 84 (0.8) | 553 (3.8) |
| Canada (O,Q) | r | 13 (0.5) | 567 (3.7) | 31 (0.7) | 554 (3.1) | 57 (0.8) | 545 (2.2) |
| Colombia | r | 4 (0.4) | 435 (11.1) | 8 (0.7) | 444 (7.9) | 88 (0.8) | 425 (4.2) |
| Cyprus | s | 4 (0.5) | 493 (11.8) | 10 (0.8) | 501 (6.3) | 86 (0.9) | 493 (3.3) |
| Czech Republic | | 2 (0.3) | ~ ~ | 8 (0.6) | 550 (4.6) | 90 (0.7) | 540 (2.5) |
| England | s | 8 (0.8) | 580 (7.9) | 25 (1.2) | 571 (4.6) | 66 (1.4) | 572 (4.1) |
| France | | 12 (0.7) | 521 (4.7) | 23 (0.8) | 530 (3.5) | 65 (1.1) | 530 (2.6) |
| Germany | | 4 (0.3) | 529 (4.7) | 15 (0.6) | 534 (2.5) | 81 (0.7) | 546 (1.9) |
| Greece | | 4 (0.7) | 546 (10.3) | 7 (0.8) | 559 (9.2) | 89 (1.2) | 522 (3.6) |
| Hong Kong, SAR | r | 4 (0.4) | 528 (6.5) | 24 (0.8) | 525 (3.6) | 72 (0.9) | 534 (2.9) |
| Hungary | | 2 (0.3) | ~ ~ | 6 (0.5) | 564 (5.8) | 91 (0.6) | 544 (2.1) |
| Iceland | r | 4 (0.4) | 528 (7.1) | 21 (0.6) | 519 (3.9) | 74 (0.7) | 516 (1.4) |
| Iran, Islamic Rep. of | | 3 (0.3) | 388 (16.4) | 6 (0.7) | 403 (11.2) | 92 (0.8) | 414 (4.2) |
| Israel | | x x | x x | x x | x x | x x | x x |
| Italy | | 6 (0.4) | 548 (7.0) | 15 (0.7) | 549 (3.5) | 79 (0.8) | 544 (2.5) |
| Kuwait | r | 9 (0.4) | 407 (7.7) | 24 (0.7) | 409 (5.1) | 67 (0.8) | 397 (4.6) |
| Latvia | | 2 (0.4) | ~ ~ | 3 (0.4) | 555 (12.2) | 96 (0.6) | 549 (2.4) |
| Lithuania | | -- | -- | -- | -- | -- | -- |
| Macedonia, Rep. of | r | 7 (0.8) | 420 (12.3) | 15 (0.8) | 433 (8.7) | 78 (1.2) | 457 (5.0) |
| Moldova, Rep. of | | 2 (0.3) | ~ ~ | 6 (0.6) | 501 (7.3) | 92 (0.7) | 492 (3.7) |
| Morocco | | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 9 (0.7) | 554 (6.8) | 25 (1.1) | 562 (3.0) | 66 (1.3) | 565 (2.7) |
| New Zealand | r | 9 (0.7) | 559 (8.6) | 23 (1.1) | 536 (5.2) | 69 (1.1) | 535 (3.7) |
| Norway | | 5 (0.5) | 500 (8.3) | 20 (1.1) | 504 (4.8) | 75 (1.1) | 502 (3.0) |
| Romania | | 4 (0.5) | 524 (9.7) | 8 (0.7) | 534 (6.9) | 88 (1.0) | 513 (4.7) |
| Russian Federation | | 2 (0.3) | ~ ~ | 4 (0.4) | 524 (9.4) | 94 (0.6) | 529 (4.5) |
| Scotland | s | 7 (0.6) | 545 (9.7) | 22 (1.0) | 541 (5.4) | 71 (1.1) | 544 (4.2) |
| Singapore | | 9 (0.4) | 538 (5.9) | 34 (0.7) | 541 (4.7) | 57 (0.7) | 524 (5.4) |
| Slovak Republic | | 4 (0.4) | 511 (8.7) | 12 (0.6) | 513 (5.4) | 84 (0.7) | 522 (2.8) |
| Slovenia | | 5 (0.4) | 513 (6.8) | 18 (0.9) | 509 (3.8) | 77 (0.9) | 504 (2.1) |
| Sweden | | 4 (0.3) | 572 (7.0) | 22 (0.8) | 562 (3.3) | 74 (0.9) | 564 (2.3) |
| Turkey | | 3 (0.3) | 435 (9.8) | 8 (0.6) | 445 (7.5) | 88 (0.7) | 452 (3.6) |
| United States | | -- | -- | -- | -- | -- | -- |
| International Avg. | | 5 (0.1) | 505 (1.9) | 15 (0.1) | 512 (1.2) | 79 (0.2) | 506 (0.7) |

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

Background data provided by parents.

() 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 4.4: Students Speak Language of the Test at Home

ISC
4th Grade
PIRLS 2001

| Countries | Always or Almost Always | | Sometimes | | Never | |
|-----------------------|-------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 84 (0.9) | 444 (5.3) | 10 (0.6) | 404 (9.8) | 6 (0.6) | 381 (9.7) |
| Belize | 28 (1.6) | 343 (5.8) | 51 (1.7) | 331 (6.1) | 21 (1.9) | 306 (7.9) |
| Bulgaria | 84 (2.0) | 563 (3.4) | 14 (1.7) | 499 (9.7) | 2 (0.6) | ~ ~ |
| Canada (O,Q) | 84 (1.0) | 551 (2.4) | 15 (0.8) | 520 (3.6) | 2 (0.2) | ~ ~ |
| Colombia | 84 (1.2) | 431 (4.6) | 13 (1.1) | 399 (5.6) | 3 (0.4) | 372 (12.2) |
| Cyprus | 82 (0.9) | 500 (3.1) | 16 (0.9) | 477 (6.1) | 2 (0.3) | ~ ~ |
| Czech Republic | 93 (0.5) | 540 (2.1) | 6 (0.5) | 510 (7.4) | 1 (0.2) | ~ ~ |
| England | 88 (1.0) | 559 (3.4) | 11 (0.9) | 510 (5.9) | 1 (0.2) | ~ ~ |
| France | 87 (0.9) | 532 (2.5) | 12 (0.8) | 494 (3.6) | 1 (0.2) | ~ ~ |
| Germany | 90 (0.7) | 547 (1.8) | 9 (0.7) | 487 (3.6) | 1 (0.1) | ~ ~ |
| Greece | 94 (0.6) | 527 (3.5) | 6 (0.5) | 507 (9.7) | 0 (0.1) | ~ ~ |
| Hong Kong, SAR | 5 (0.3) | 527 (5.9) | 50 (1.2) | 535 (3.0) | 45 (1.3) | 523 (3.4) |
| Hungary | 96 (0.5) | 546 (2.2) | 4 (0.4) | 498 (6.8) | 1 (0.2) | ~ ~ |
| Iceland | 88 (0.4) | 519 (1.2) | 11 (0.4) | 488 (4.6) | 1 (0.2) | ~ ~ |
| Iran, Islamic Rep. of | 56 (2.9) | 443 (4.5) | 24 (1.8) | 394 (5.0) | 20 (2.5) | 362 (5.7) |
| Israel | 80 (1.0) | 523 (2.7) | 19 (0.9) | 471 (5.8) | 2 (0.3) | ~ ~ |
| Italy | 96 (0.4) | 543 (2.4) | 3 (0.3) | 498 (7.4) | 1 (0.2) | ~ ~ |
| Kuwait | 56 (1.5) | 401 (4.4) | 34 (1.3) | 402 (5.5) | 10 (0.8) | 393 (7.3) |
| Latvia | 91 (1.1) | 548 (2.3) | 8 (0.9) | 521 (6.7) | 1 (0.3) | ~ ~ |
| Lithuania | 94 (0.9) | 546 (2.4) | 5 (0.8) | 515 (8.3) | 1 (0.3) | ~ ~ |
| Macedonia, Rep. of | 88 (1.6) | 454 (4.2) | 10 (1.4) | 415 (14.8) | 2 (0.5) | ~ ~ |
| Moldova, Rep. of | 85 (2.0) | 494 (3.7) | 13 (1.5) | 487 (13.6) | 2 (0.6) | ~ ~ |
| Morocco | 18 (1.4) | 332 (10.8) | 38 (2.4) | 352 (8.9) | 43 (3.0) | 368 (15.4) |
| Netherlands | 86 (1.5) | 558 (2.3) | 11 (0.9) | 528 (5.7) | 3 (0.9) | 546 (8.5) |
| New Zealand | 84 (1.1) | 540 (3.4) | 14 (1.0) | 485 (8.3) | 2 (0.3) | ~ ~ |
| Norway | 92 (0.6) | 505 (2.8) | 7 (0.6) | 459 (6.7) | 1 (0.2) | ~ ~ |
| Romania | 91 (1.6) | 517 (4.5) | 6 (1.0) | 492 (16.3) | 2 (1.1) | ~ ~ |
| Russian Federation | 85 (2.2) | 535 (3.6) | 11 (1.5) | 496 (12.8) | 4 (0.8) | 480 (15.3) |
| Scotland | 89 (0.9) | 533 (3.8) | 9 (0.7) | 502 (5.1) | 2 (0.4) | ~ ~ |
| Singapore | 43 (1.4) | 564 (4.6) | 50 (1.3) | 509 (5.3) | 8 (0.4) | 466 (7.7) |
| Slovak Republic | 84 (1.5) | 526 (2.7) | 13 (1.3) | 491 (6.9) | 3 (0.5) | 462 (15.9) |
| Slovenia | 86 (1.0) | 507 (2.1) | 12 (0.9) | 471 (4.1) | 1 (0.2) | ~ ~ |
| Sweden | 90 (1.1) | 565 (1.9) | 9 (1.0) | 522 (5.0) | 1 (0.2) | ~ ~ |
| Turkey | 87 (1.4) | 456 (3.6) | 12 (1.3) | 408 (6.1) | 1 (0.2) | ~ ~ |
| United States | 85 (1.1) | 551 (3.7) | 14 (1.1) | 506 (6.1) | 2 (0.3) | ~ ~ |
| International Avg. | 79 (0.2) | 508 (0.7) | 16 (0.2) | 474 (1.4) | 6 (0.1) | 424 (2.7) |

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

Background data provided by students.

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

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

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

On average, across countries, there was a strong relationship between frequency of speaking the language of the PIRLS test at home and performance on the PIRLS test, with the average score for those always speaking the PIRLS language at home (508 points) considerably higher than that for those speaking it only sometimes (474 points) or never (424 points). The principal exception to this pattern was Morocco, where French is often the language of more affluent homes. These more affluent Francophone students, who reported never speaking Arabic (the PIRLS language) at home, had higher achievement than those who sometimes or always speak Arabic.

Many countries tested in more than one language in order to cover their whole student population. These included Canada (O,Q) (English and French), Israel (Hebrew and Arabic), Italy (Italian and German), Latvia (Latvian and Russian), Macedonia (Macedonian and Albanian), Moldova (Romanian and Russian), New Zealand (English and Māori), Norway (Bokmaal and Nynorsk), and Romania (Romanian and Hungarian).

Related to the question of the language spoken in the home is the size of the immigrant population in a country. Exhibit 4.5 shows students' reports about where their parents were born, together with average reading achievement. On average, across countries, more than three-quarters of students (77%) reported that both parents were born in the country, with a further 13 percent reporting that one parent and 9 percent that neither parent was born there. Within the overall pattern, however, there was considerable variation. Some countries, such as Bulgaria, Hungary, Iran, Romania, and Turkey, have very little immigration with more than 90 percent of students reporting that both parents were born in the country. Others, including Belize, Canada (O,Q), France, Germany, Hong Kong, Israel, New Zealand, and the United States, had at least 15 percent of students reporting that neither parent was born in the country. Although performance on the PIRLS reading assessment, on average, was highest among students reporting both parents born in the country (506), in-between for students with one parent born in the country (491), and lowest for those with neither (476), Hong Kong, Israel, Kuwait, Latvia, Moldova, New Zealand, and Singapore had performance among

Exhibit 4.5: Students' Parents Born in Country**ISC** 4th Grade
PIRLS 2001

| Countries | Father and Mother Born in Country | | Father or Mother Born in Country | | Neither Parent Born in Country | |
|-----------------------|-----------------------------------|---------------------|----------------------------------|---------------------|--------------------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | r 78 (1.0) | 441 (5.5) | 14 (0.8) | 417 (8.3) | 8 (0.8) | 407 (10.3) |
| Belize | r 44 (1.8) | 335 (6.7) | 28 (1.1) | 326 (7.4) | 29 (1.9) | 324 (6.6) |
| Bulgaria | 95 (0.4) | 555 (3.6) | 4 (0.4) | 526 (9.6) | 0 (0.1) | ~ ~ |
| Canada (O,Q) | 61 (1.6) | 552 (2.6) | 18 (0.7) | 547 (3.0) | 21 (1.7) | 537 (3.8) |
| Colombia | 86 (0.8) | 426 (4.9) | 10 (0.6) | 410 (6.4) | 4 (0.5) | 401 (6.3) |
| Cyprus | 80 (1.0) | 500 (3.2) | 16 (0.8) | 485 (5.2) | 4 (0.6) | 476 (8.0) |
| Czech Republic | 88 (0.9) | 541 (2.3) | 10 (0.8) | 529 (4.8) | 2 (0.3) | ~ ~ |
| England | 67 (1.8) | 559 (3.8) | 21 (1.0) | 553 (4.9) | 12 (1.5) | 536 (6.4) |
| France | 70 (1.7) | 533 (2.8) | 16 (0.7) | 526 (4.3) | 15 (1.3) | 503 (3.9) |
| Germany | 75 (1.2) | 553 (1.8) | 10 (0.4) | 530 (3.9) | 15 (1.0) | 498 (2.9) |
| Greece | 81 (1.1) | 530 (3.3) | 10 (0.9) | 517 (6.0) | 9 (0.9) | 503 (8.6) |
| Hong Kong, SAR | r 38 (1.8) | 528 (3.3) | 22 (0.6) | 525 (3.9) | 40 (1.8) | 536 (3.5) |
| Hungary | 93 (0.5) | 546 (2.2) | 4 (0.4) | 532 (7.2) | 2 (0.3) | ~ ~ |
| Iceland | 87 (0.6) | 518 (1.4) | 11 (0.5) | 503 (4.9) | 2 (0.2) | ~ ~ |
| Iran, Islamic Rep. of | 92 (0.8) | 418 (4.5) | 5 (0.5) | 382 (10.9) | 4 (0.5) | 399 (6.9) |
| Israel | 57 (1.4) | 507 (3.4) | 20 (0.8) | 521 (5.3) | 22 (1.2) | 518 (4.4) |
| Italy | 88 (0.6) | 544 (2.4) | 8 (0.5) | 526 (5.0) | 4 (0.4) | 505 (6.7) |
| Kuwait | r 80 (1.0) | 401 (5.2) | 14 (0.7) | 391 (5.5) | 6 (0.6) | 416 (9.7) |
| Latvia | 65 (1.4) | 546 (2.1) | 25 (0.9) | 546 (4.0) | 10 (1.0) | 552 (6.7) |
| Lithuania | 88 (0.8) | 547 (2.6) | 11 (0.7) | 536 (4.6) | 2 (0.4) | ~ ~ |
| Macedonia, Rep. of | 88 (1.1) | 454 (4.5) | 9 (0.9) | 428 (10.6) | 3 (0.4) | 405 (14.8) |
| Moldova, Rep. of | 79 (1.3) | 493 (3.9) | 16 (1.0) | 489 (6.9) | 5 (0.5) | 503 (11.6) |
| Morocco | 84 (1.2) | 361 (11.0) | 12 (0.9) | 336 (12.0) | 4 (0.5) | 331 (12.1) |
| Netherlands | 79 (1.4) | 560 (2.3) | 11 (0.6) | 552 (5.0) | 10 (1.2) | 516 (4.7) |
| New Zealand | 59 (1.6) | 531 (4.2) | 22 (1.1) | 535 (4.9) | 19 (1.4) | 530 (6.2) |
| Norway | 82 (1.1) | 503 (2.9) | 12 (0.9) | 508 (4.8) | 5 (0.7) | 446 (7.6) |
| Romania | 96 (0.5) | 518 (4.3) | 3 (0.4) | 428 (9.9) | 1 (0.2) | ~ ~ |
| Russian Federation | 76 (1.5) | 534 (3.9) | 16 (1.0) | 525 (5.2) | 9 (1.0) | 500 (11.8) |
| Scotland | 80 (1.0) | 537 (3.4) | 15 (0.8) | 520 (6.1) | 5 (0.5) | 506 (11.4) |
| Singapore | 66 (0.9) | 533 (5.1) | 22 (0.7) | 521 (5.9) | 12 (0.6) | 537 (6.0) |
| Slovak Republic | 88 (0.8) | 521 (2.9) | 9 (0.6) | 506 (5.3) | 2 (0.5) | ~ ~ |
| Slovenia | 77 (1.3) | 507 (2.1) | 11 (0.7) | 491 (4.6) | 12 (1.0) | 478 (3.8) |
| Sweden | 76 (1.6) | 567 (2.1) | 13 (0.6) | 559 (3.6) | 12 (1.6) | 523 (5.0) |
| Turkey | 93 (0.7) | 453 (3.7) | 3 (0.3) | 428 (10.6) | 4 (0.5) | 419 (8.0) |
| United States | 68 (1.8) | 556 (4.1) | 15 (0.8) | 530 (5.3) | 17 (1.7) | 522 (6.9) |
| International Avg. | 77 (0.2) | 506 (0.7) | 13 (0.1) | 491 (1.1) | 9 (0.2) | 476 (1.6) |

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

Background data provided by students.

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

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

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

children reporting neither parent born in the country that was as good as or better than that of children with native-born parents.

What Literacy Resources Do Students Have in Their Homes?

Earlier IEA studies have shown that students from homes with extensive literacy resources have higher achievement in reading and other subjects than those from less-advantaged backgrounds. For example, IEA's 1991 study of reading literacy in 32 countries found a clear-cut relationship between the number of books students reported in their homes and their reading achievement levels.² Furthermore, TIMSS has shown that eighth-grade students from homes with large numbers of books, with a range of educational study aids, or with parents with university-level education also had higher achievement in mathematics and science.³ Building on the TIMSS work, PIRLS has developed an Index of Home Educational Resources based on parents' and students' reports of the number of books, the number of children's books, and the presence of four educational aids (computer, study desk for own use, books of their own, and access to a daily newspaper) in the home, and on parents' education.

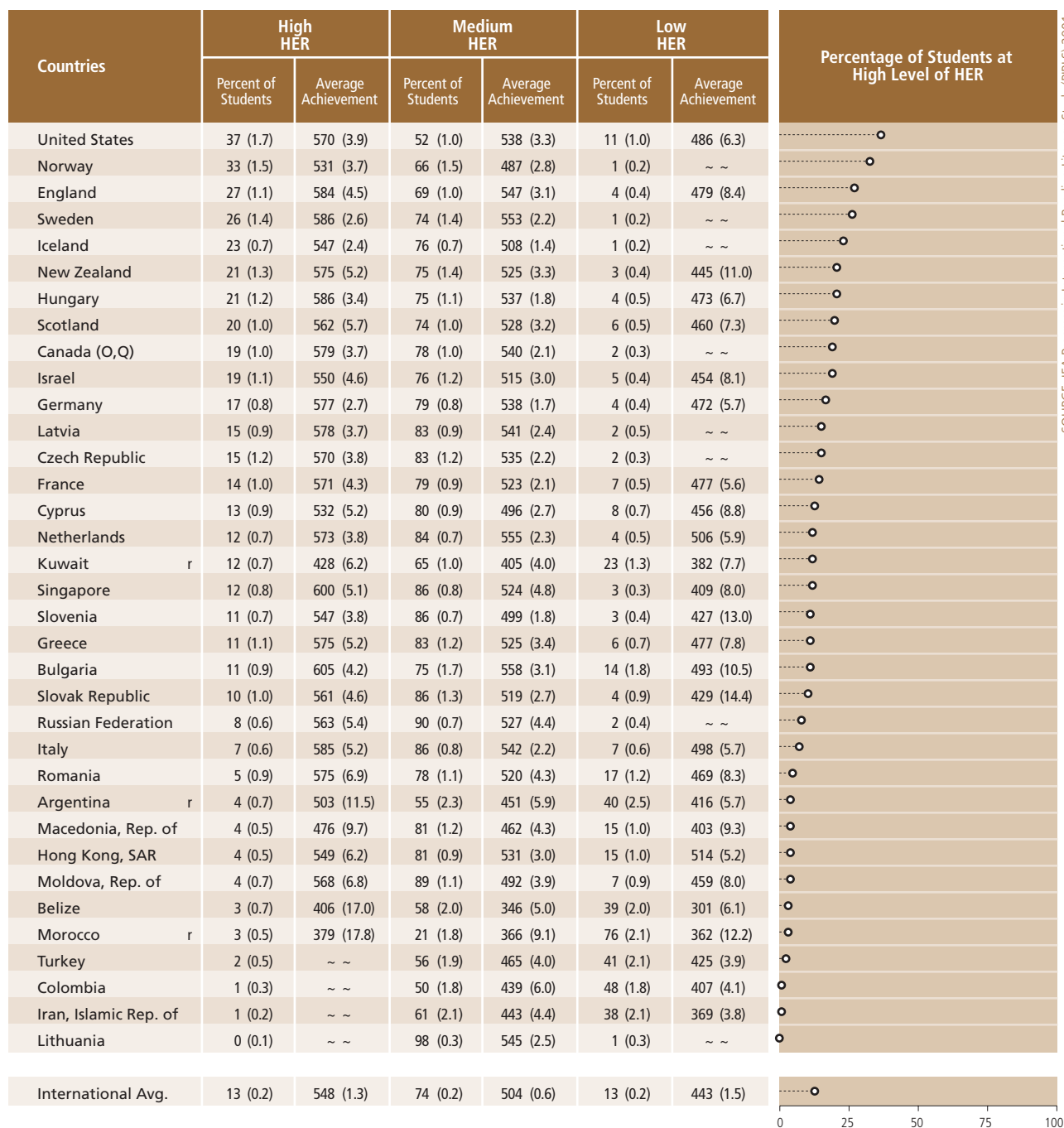
Students assigned to the high level of this index reported coming from homes with more than 100 books, more than 25 children's books, at least three of the four educational aids, and where at least one parent finished university. Students assigned to the low level had 25 or fewer books in the home, 25 or fewer children's books, no more than two of the four educational aids, and parents that had not completed secondary education. The remaining students were assigned to the medium level. Exhibit 4.6 presents the percentage of students at each level of the index for each country, together with the average reading achievement for those students. Standard errors also are shown. Countries are ordered by the percentage of students at the high level of the index, which also is displayed graphically for each country at the right hand side of the exhibit. The international average across all countries is shown at the bottom of each column.

On average, internationally, there were 13 percent of students at the high level of the index, 74 percent at the medium level, and 13 percent at the

2 Elley, W.B. (1992). *How in the world do students read?* The Hague: International Association for the Evaluation of Educational Achievement (IEA).

3 See, for example, Mullis, I.V.S., Martin, M.O., Gonzalez, E.J., Gregory, K.D., Garden, R.A., O'Connor, K.M., Chrostowski, S.J., & Smith, T.A. (2000). *TIMSS 1999 international mathematics report: Findings from IEA's repeat of the Third International Mathematics and Science Study at the eighth grade*. Chestnut Hill, MA: Boston College.

Exhibit 4.6: Index of Home Educational Resources (HER)

ISC
4th Grade
PIRLS 2001

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

Index of Home Educational Resources (HER)

Based on students' responses to two questions about home educational resources: number of books in the home, and educational aids in the home (computer, study desk/table for own use, books of their own, access to a daily newspaper); and parents' responses to two questions: number of children's books in the home, and parents' education. High level indicates more than 100 books in the home; more than 25

children's books; 3 or 4 educational aids; and highest level of education for either parent is finished university. Low level indicates 25 or fewer books in the home; 25 or fewer children's books; 2 or fewer educational aids; and highest level of education for either parent is some secondary or less. Medium level includes all other combinations of responses.

Background data provided by students.

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

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

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

low level, but this distribution varied considerably from country to country. While most countries had from 60 to 80 percent of students at the middle level, the most striking differences were in the high and low levels. Countries with relatively high proportions of students from well-resourced homes (more than 20% of students at the high level of the index) included the United States, Norway, England, Sweden, Iceland, New Zealand, Hungary, and Scotland. These countries all had average student performance on the PIRLS reading assessment that was at or above the international average (as shown in Exhibit 1.1). At the other extreme, Argentina, Belize, Morocco, Turkey, Colombia, and Iran had more than one-third of their students at the low level of the index, and very few at the high level. These countries also had average student reading performance that was below the international average.

Although across countries there is a rough correspondence between the percentage of students at the high level of the index of home educational resources and a country's average reading achievement, more significant were the differences in average reading achievement within each country between students at the three levels of the index. There was a substantial difference in the average reading achievement of students at the three index levels for every country for which data were available. The difference between the international average for those at the high level (548) and those at the low level (443) amounted to 105 score points, which is more than one and one-half times the difference between the highest-performing country (Sweden) and the international average.

Because books are probably the most important literacy resource, Exhibits 4.7 through 4.9 provide more detail about the number of books in students' homes. Parents' reports on the number of books in the home and associated average reading performance are presented in Exhibit 4.7, and students' reports on the same topic in Exhibit 4.8. Both provide a very similar picture, although the parents' reported a somewhat higher level of book ownership. Students' reports include data from more countries, however, and therefore are more comprehensive. Both reports indicated a wide range within each country. For example, according to students, countries with most books in the home included Bulgaria, Canada (O,Q), the Czech Republic, England,

Exhibit 4.7: Parents' Reports of Books in the Home**ISC** 4th Grade
PIRLS 2001

| Countries | | More than 200 Books | | 101-200 Books | | 26-100 Books | | 11-25 Books | | 0-10 Books | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 4 (0.8) | 516 (9.1) | 5 (0.6) | 490 (10.4) | 22 (1.6) | 462 (6.8) | 24 (1.2) | 425 (5.7) | 45 (2.5) | 399 (6.9) |
| Belize | s | 6 (0.7) | 386 (10.6) | 6 (0.9) | 388 (14.6) | 23 (1.4) | 352 (6.9) | 28 (1.5) | 331 (6.9) | 36 (2.4) | 297 (5.9) |
| Bulgaria | | 30 (1.4) | 588 (4.0) | 17 (0.9) | 577 (3.8) | 26 (1.1) | 551 (4.1) | 10 (0.9) | 523 (6.3) | 18 (1.9) | 492 (10.0) |
| Canada (O,Q) | r | 24 (0.9) | 573 (3.1) | 20 (0.8) | 556 (3.2) | 37 (0.8) | 545 (2.4) | 12 (0.6) | 529 (4.3) | 6 (0.4) | 516 (5.5) |
| Colombia | | 3 (0.4) | 470 (11.3) | 4 (0.5) | 471 (11.7) | 20 (1.0) | 451 (7.0) | 25 (1.4) | 421 (6.4) | 47 (2.0) | 408 (4.4) |
| Cyprus | s | 12 (0.8) | 521 (5.9) | 12 (0.9) | 506 (6.2) | 43 (1.1) | 494 (4.5) | 23 (0.9) | 479 (5.7) | 10 (0.9) | 462 (7.7) |
| Czech Republic | | 30 (1.4) | 563 (3.2) | 24 (1.1) | 547 (3.0) | 37 (1.5) | 526 (2.9) | 8 (0.7) | 504 (5.3) | 1 (0.3) | ~ ~ |
| England | s | 28 (1.9) | 602 (4.3) | 21 (0.9) | 582 (6.0) | 34 (1.5) | 557 (4.4) | 11 (0.9) | 542 (7.5) | 7 (0.7) | 530 (10.3) |
| France | | 23 (1.4) | 567 (3.7) | 17 (0.7) | 542 (3.8) | 35 (1.1) | 518 (2.8) | 14 (0.9) | 503 (4.4) | 10 (0.7) | 481 (4.8) |
| Germany | | 27 (1.1) | 574 (1.9) | 18 (0.6) | 555 (3.2) | 36 (0.9) | 534 (1.8) | 12 (0.6) | 509 (3.2) | 6 (0.5) | 493 (4.2) |
| Greece | | 16 (1.4) | 570 (4.4) | 13 (0.8) | 544 (7.5) | 44 (1.2) | 524 (3.8) | 16 (1.1) | 491 (4.6) | 10 (0.9) | 495 (7.8) |
| Hong Kong, SAR | | 6 (0.6) | 552 (4.5) | 7 (0.5) | 544 (4.5) | 30 (0.9) | 533 (3.1) | 27 (0.8) | 527 (3.6) | 30 (1.2) | 521 (3.9) |
| Hungary | | 40 (1.4) | 572 (2.7) | 22 (0.7) | 543 (2.8) | 27 (1.0) | 530 (2.9) | 7 (0.4) | 496 (4.9) | 4 (0.5) | 479 (6.8) |
| Iceland | r | 40 (0.9) | 534 (2.2) | 26 (0.8) | 519 (3.1) | 27 (0.8) | 497 (2.7) | 5 (0.4) | 480 (5.2) | 1 (0.2) | ~ ~ |
| Iran, Islamic Rep. of | | 5 (0.4) | 465 (8.9) | 4 (0.4) | 474 (10.5) | 16 (0.8) | 454 (5.5) | 25 (1.0) | 423 (5.5) | 49 (1.6) | 390 (3.9) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 17 (0.8) | 577 (3.1) | 14 (0.7) | 560 (3.5) | 36 (0.9) | 542 (2.7) | 21 (0.9) | 525 (3.2) | 12 (0.6) | 506 (5.5) |
| Kuwait | r | 13 (0.7) | 421 (5.8) | 9 (0.4) | 414 (5.5) | 31 (0.9) | 405 (5.1) | 27 (0.6) | 400 (5.6) | 20 (0.8) | 379 (5.5) |
| Latvia | | 35 (1.2) | 562 (3.1) | 23 (1.1) | 550 (3.6) | 32 (1.1) | 534 (2.9) | 7 (0.7) | 526 (9.1) | 3 (0.7) | 512 (15.0) |
| Lithuania | | 19 (1.1) | 568 (4.4) | 18 (0.9) | 557 (3.3) | 39 (1.2) | 545 (2.8) | 16 (0.9) | 520 (4.3) | 8 (0.8) | 499 (4.9) |
| Macedonia, Rep. of | r | 8 (0.8) | 488 (8.7) | 7 (0.7) | 494 (11.0) | 34 (1.4) | 477 (4.9) | 29 (1.1) | 429 (6.2) | 22 (1.8) | 406 (8.2) |
| Moldova, Rep. of | | 8 (0.9) | 544 (6.4) | 8 (0.8) | 543 (8.5) | 23 (1.1) | 510 (4.7) | 25 (1.2) | 487 (4.3) | 36 (1.8) | 464 (5.1) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 25 (1.3) | 588 (3.0) | 19 (1.0) | 568 (3.4) | 32 (1.0) | 559 (2.6) | 14 (1.0) | 543 (4.3) | 10 (0.9) | 534 (5.5) |
| New Zealand | r | 28 (1.3) | 568 (4.6) | 20 (0.9) | 548 (6.7) | 35 (1.2) | 526 (3.4) | 11 (1.0) | 506 (6.2) | 6 (0.5) | 481 (12.1) |
| Norway | | 45 (1.4) | 523 (3.4) | 22 (0.9) | 500 (4.6) | 26 (0.9) | 482 (4.7) | 5 (0.6) | 457 (8.7) | 2 (0.3) | ~ ~ |
| Romania | | 13 (1.1) | 565 (5.1) | 11 (0.8) | 547 (5.0) | 27 (1.3) | 523 (5.0) | 21 (1.3) | 494 (6.7) | 28 (1.9) | 482 (9.4) |
| Russian Federation | | 21 (0.9) | 547 (3.8) | 17 (0.7) | 540 (4.2) | 35 (0.8) | 527 (4.5) | 16 (1.0) | 509 (6.9) | 10 (1.2) | 506 (9.7) |
| Scotland | s | 22 (1.3) | 579 (6.1) | 17 (1.2) | 555 (7.5) | 35 (1.1) | 535 (4.4) | 16 (1.1) | 517 (6.3) | 11 (1.0) | 505 (7.2) |
| Singapore | | 12 (0.7) | 575 (6.0) | 11 (0.4) | 559 (5.0) | 40 (0.7) | 535 (5.0) | 21 (0.6) | 510 (5.6) | 16 (0.6) | 491 (6.7) |
| Slovak Republic | | 17 (1.0) | 544 (4.6) | 19 (0.7) | 539 (3.6) | 45 (1.2) | 519 (2.9) | 12 (0.8) | 486 (5.3) | 7 (1.0) | 466 (10.8) |
| Slovenia | | 13 (0.7) | 531 (3.5) | 16 (0.7) | 519 (4.0) | 44 (0.8) | 504 (2.3) | 19 (0.7) | 484 (4.2) | 7 (0.6) | 463 (5.3) |
| Sweden | | 42 (1.5) | 580 (2.4) | 22 (0.8) | 562 (2.8) | 25 (1.0) | 552 (3.0) | 7 (0.6) | 531 (5.3) | 3 (0.4) | 516 (7.6) |
| Turkey | | 5 (0.5) | 506 (7.1) | 5 (0.5) | 497 (7.0) | 23 (1.1) | 473 (4.3) | 28 (1.0) | 448 (4.2) | 40 (1.9) | 426 (3.8) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 20 (0.2) | 541 (1.0) | 15 (0.1) | 528 (1.1) | 32 (0.2) | 509 (0.7) | 17 (0.2) | 486 (1.1) | 16 (0.2) | 469 (1.5) |

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

Background data provided by students.

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

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

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

Exhibit 4.8: Students' Reports of Books in the Home
ISC 4th Grade
PIRLS 2001

| Countries | More than 200 Books | | 101-200 Books | | 26-100 Books | | 11-25 Books | | 0-10 Books | | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Argentina | r | 6 (0.7) | 474 (12.6) | 7 (0.7) | 484 (11.1) | 21 (1.6) | 466 (9.1) | 24 (1.2) | 446 (6.8) | 42 (2.5) | 416 (5.5) |
| Belize | | 8 (0.9) | 363 (12.0) | 7 (0.8) | 348 (11.4) | 17 (1.1) | 357 (8.3) | 27 (1.1) | 343 (6.5) | 41 (2.0) | 304 (5.0) |
| Bulgaria | | 27 (1.4) | 583 (3.8) | 16 (0.9) | 579 (4.9) | 24 (1.1) | 565 (3.8) | 13 (1.0) | 537 (5.7) | 20 (1.8) | 498 (8.1) |
| Canada (O,Q) | | 22 (0.9) | 562 (3.4) | 22 (0.8) | 565 (3.3) | 35 (0.7) | 546 (2.4) | 15 (0.8) | 519 (3.3) | 6 (0.5) | 492 (4.7) |
| Colombia | | 5 (0.5) | 451 (9.9) | 7 (0.5) | 455 (9.0) | 18 (1.1) | 457 (7.3) | 24 (1.0) | 438 (4.7) | 46 (1.8) | 401 (4.8) |
| Cyprus | | 12 (0.8) | 492 (5.6) | 13 (0.8) | 520 (5.7) | 35 (1.1) | 510 (3.8) | 27 (1.1) | 490 (3.6) | 12 (0.9) | 466 (6.1) |
| Czech Republic | | 20 (1.3) | 557 (3.7) | 21 (1.0) | 552 (3.1) | 41 (1.4) | 538 (2.8) | 15 (1.0) | 512 (3.1) | 4 (0.4) | 479 (7.9) |
| England | | 20 (1.0) | 577 (5.0) | 23 (1.2) | 579 (4.1) | 34 (1.2) | 555 (3.5) | 16 (1.0) | 518 (3.8) | 7 (0.6) | 477 (6.7) |
| France | | 19 (1.0) | 555 (4.1) | 19 (0.9) | 545 (3.1) | 36 (1.0) | 526 (2.6) | 19 (0.9) | 506 (3.6) | 8 (0.5) | 472 (6.1) |
| Germany | | 16 (0.7) | 570 (2.6) | 16 (0.7) | 568 (2.9) | 35 (0.8) | 546 (2.1) | 24 (0.8) | 523 (2.4) | 9 (0.6) | 486 (4.2) |
| Greece | | 15 (1.1) | 544 (6.0) | 15 (0.9) | 548 (4.3) | 35 (1.4) | 536 (5.7) | 25 (1.3) | 514 (4.9) | 9 (0.9) | 488 (7.1) |
| Hong Kong, SAR | | 9 (0.6) | 533 (5.0) | 10 (0.5) | 536 (4.0) | 30 (0.8) | 538 (3.0) | 26 (0.7) | 529 (3.4) | 26 (1.1) | 515 (4.4) |
| Hungary | | 28 (1.3) | 568 (3.1) | 19 (0.7) | 559 (2.8) | 29 (1.0) | 544 (2.9) | 16 (0.8) | 522 (2.8) | 7 (0.8) | 481 (5.0) |
| Iceland | | 23 (0.7) | 528 (3.3) | 25 (0.6) | 532 (2.1) | 35 (0.7) | 515 (2.3) | 13 (0.5) | 490 (3.7) | 4 (0.3) | 455 (6.1) |
| Iran, Islamic Rep. of | | 4 (0.4) | 466 (8.0) | 5 (0.4) | 469 (9.0) | 12 (0.9) | 473 (6.1) | 22 (1.3) | 440 (4.6) | 56 (2.5) | 390 (3.4) |
| Israel | r | 19 (1.1) | 527 (5.7) | 16 (0.8) | 536 (4.7) | 33 (1.1) | 532 (3.2) | 21 (1.0) | 506 (4.5) | 10 (0.9) | 472 (7.5) |
| Italy | | 13 (0.6) | 551 (4.2) | 14 (0.8) | 560 (3.9) | 30 (0.8) | 553 (3.6) | 29 (1.0) | 538 (2.9) | 14 (0.8) | 499 (4.2) |
| Kuwait | s | 12 (0.6) | 418 (6.0) | 11 (0.6) | 415 (6.7) | 24 (0.8) | 411 (5.4) | 24 (1.0) | 405 (5.6) | 29 (1.5) | 386 (6.5) |
| Latvia | | 24 (1.3) | 555 (3.1) | 24 (1.1) | 557 (3.6) | 34 (0.9) | 546 (2.5) | 13 (0.8) | 525 (4.3) | 5 (0.6) | 513 (6.4) |
| Lithuania | | 9 (0.6) | 562 (5.0) | 16 (1.0) | 568 (4.0) | 39 (1.1) | 552 (2.6) | 25 (1.1) | 529 (3.5) | 10 (1.0) | 505 (5.1) |
| Macedonia, Rep. of | r | 8 (0.8) | 465 (10.6) | 6 (0.5) | 487 (7.9) | 27 (1.5) | 491 (4.8) | 34 (1.6) | 454 (5.6) | 24 (1.8) | 415 (7.4) |
| Moldova, Rep. of | | 6 (0.9) | 542 (8.6) | 8 (0.8) | 538 (5.4) | 21 (1.1) | 515 (4.4) | 27 (1.3) | 488 (4.4) | 37 (2.0) | 468 (5.1) |
| Morocco | r | 2 (0.5) | ~ ~ | 3 (0.4) | 331 (17.2) | 9 (1.2) | 372 (13.9) | 18 (1.5) | 351 (8.5) | 68 (2.4) | 362 (12.4) |
| Netherlands | | 12 (0.8) | 570 (3.8) | 16 (0.7) | 569 (3.0) | 36 (0.9) | 560 (2.6) | 25 (1.0) | 547 (2.7) | 11 (0.8) | 523 (5.3) |
| New Zealand | | 23 (1.4) | 560 (5.3) | 23 (1.1) | 556 (4.0) | 33 (1.3) | 533 (4.5) | 14 (0.9) | 493 (5.9) | 8 (0.7) | 464 (7.2) |
| Norway | | 27 (1.1) | 518 (3.6) | 25 (0.9) | 517 (3.9) | 33 (1.2) | 495 (3.6) | 10 (0.9) | 463 (6.5) | 4 (0.5) | 435 (7.5) |
| Romania | | 9 (0.9) | 565 (5.2) | 9 (0.8) | 558 (5.7) | 25 (1.1) | 534 (4.2) | 25 (1.3) | 508 (5.0) | 32 (1.8) | 482 (9.5) |
| Russian Federation | | 17 (1.0) | 541 (4.7) | 16 (0.8) | 543 (4.4) | 35 (1.1) | 535 (4.0) | 21 (1.1) | 519 (5.8) | 11 (1.0) | 496 (9.3) |
| Scotland | | 19 (0.9) | 553 (5.9) | 18 (1.1) | 554 (6.1) | 34 (1.0) | 539 (3.9) | 18 (0.8) | 506 (4.1) | 11 (0.8) | 466 (6.6) |
| Singapore | | 16 (0.7) | 569 (5.7) | 19 (0.6) | 560 (4.9) | 37 (1.0) | 540 (4.1) | 19 (0.9) | 500 (5.3) | 10 (0.7) | 442 (7.8) |
| Slovak Republic | | 15 (1.0) | 542 (4.5) | 22 (1.0) | 535 (4.1) | 40 (1.4) | 524 (3.0) | 17 (1.1) | 496 (3.8) | 7 (1.2) | 450 (15.5) |
| Slovenia | | 15 (1.0) | 513 (4.1) | 19 (0.9) | 523 (3.2) | 37 (1.1) | 511 (2.0) | 21 (1.1) | 484 (3.4) | 8 (0.7) | 454 (6.4) |
| Sweden | | 31 (1.5) | 577 (2.7) | 26 (0.7) | 572 (2.5) | 31 (1.1) | 552 (2.3) | 9 (0.7) | 530 (4.0) | 3 (0.5) | 503 (6.9) |
| Turkey | | 5 (0.6) | 494 (10.8) | 5 (0.5) | 499 (8.3) | 20 (1.1) | 478 (4.3) | 30 (1.1) | 455 (3.7) | 40 (2.0) | 422 (3.8) |
| United States | | 21 (1.2) | 556 (5.8) | 22 (1.1) | 568 (4.3) | 31 (1.1) | 551 (3.8) | 17 (1.0) | 522 (4.2) | 9 (1.0) | 477 (7.0) |
| International Avg. | | 15 (0.2) | 529 (1.3) | 15 (0.1) | 525 (1.1) | 30 (0.2) | 514 (0.8) | 21 (0.2) | 490 (0.8) | 19 (0.2) | 459 (1.2) |

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

Background data provided by students.

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

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

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

Hungary, Iceland, Latvia, New Zealand, Norway, Sweden, and the United States, all of which had at least 20 percent of students reporting more than 200 books in the home. Countries where students reported having fewer books included Argentina, Belize, Colombia, Iran, Morocco, and Turkey, where 40 percent or more reported having no more than 10 books at home. On average, across countries, and in most countries individually, the more books reported in the home the higher the reading achievement.

Having children's books in the home may be more important for fostering literacy among young children than having books in general. Parents' reports of the number of children's books in the home (Exhibit 4.9) indicated a fairly high level of ownership. On average, across countries, the majority of children (58%) were in homes with more than 25 children's books. Countries where parents reported the greatest number of children's books included Canada (O,Q), England, Iceland, New Zealand, Norway, and Sweden, where 30 percent or more of students had parents reporting more than 100 children's books in the home. However, according to parents there were also countries with relatively few children's books in homes, including Argentina, Colombia, Iran, Moldova, and Turkey, where the majority of students were in homes with no more than 10 children's books. The average reading achievement difference between students from homes with lots of children's books and those from homes with few books was very large. Students from homes with more than 100 children's books had an average score of 552 points, whereas those from homes with 10 books or less had an average of just 466 score points – a difference of 86 points.

To provide further information on the educational resources in the home included in the Index of Home Educational Resources, Exhibit 4.10 presents the percent of students that reported having in their homes a computer, a study desk or table for their own use, books of their very own (not school books), and a daily newspaper. On average, 86 percent of students reported having books of their own, 78 percent a study desk or table, 58 percent a daily newspaper, and 57 percent a computer. For each of the four items, students reporting having them had higher average reading achievement than those

Exhibit 4.9: Parents' Reports of Children's Books in the Home
ISC 4th Grade
PIRLS 2001

| Countries | | More than 100 Books | | 51-100 Books | | 26-50 Books | | 11-25 Books | | 0-10 Books | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 2 (0.5) | ~ ~ | 4 (0.5) | 511 (14.2) | 12 (1.1) | 481 (7.6) | 18 (1.3) | 455 (6.7) | 64 (2.2) | 407 (5.9) |
| Belize | s | 3 (0.6) | 382 (16.2) | 6 (0.7) | 384 (12.9) | 16 (1.3) | 366 (9.4) | 28 (1.4) | 340 (6.5) | 47 (2.1) | 304 (5.6) |
| Bulgaria | | 8 (0.7) | 594 (8.2) | 15 (0.9) | 594 (4.2) | 29 (1.2) | 572 (3.5) | 23 (1.2) | 547 (4.0) | 26 (2.0) | 502 (8.0) |
| Canada (O,Q) | r | 30 (1.1) | 571 (2.8) | 30 (0.8) | 554 (2.4) | 25 (0.8) | 539 (2.9) | 11 (0.7) | 524 (3.8) | 3 (0.3) | 499 (6.7) |
| Colombia | | 1 (0.3) | ~ ~ | 2 (0.2) | ~ ~ | 7 (0.7) | 471 (11.7) | 18 (1.2) | 438 (7.0) | 73 (1.7) | 417 (4.0) |
| Cyprus | s | 8 (0.7) | 525 (8.4) | 16 (0.9) | 524 (4.8) | 31 (1.1) | 498 (4.9) | 31 (0.9) | 478 (3.9) | 15 (1.0) | 458 (5.4) |
| Czech Republic | | 16 (1.0) | 566 (4.2) | 30 (1.2) | 559 (2.6) | 37 (1.0) | 529 (2.8) | 14 (1.1) | 510 (4.5) | 3 (0.3) | 483 (9.2) |
| England | s | 35 (1.6) | 597 (4.3) | 31 (1.1) | 576 (4.6) | 23 (1.1) | 548 (5.7) | 9 (0.8) | 542 (7.8) | 3 (0.5) | 479 (14.6) |
| France | | 19 (1.2) | 570 (3.6) | 25 (0.9) | 543 (2.8) | 31 (1.0) | 515 (2.7) | 18 (0.8) | 502 (3.1) | 7 (0.6) | 473 (5.6) |
| Germany | | 17 (0.9) | 581 (2.7) | 26 (0.8) | 560 (2.1) | 33 (0.8) | 538 (1.9) | 18 (0.8) | 515 (2.9) | 7 (0.5) | 476 (4.1) |
| Greece | | 10 (1.3) | 577 (6.0) | 17 (1.0) | 549 (4.2) | 28 (1.4) | 538 (4.3) | 29 (1.3) | 512 (4.5) | 17 (1.5) | 480 (6.2) |
| Hong Kong, SAR | | 3 (0.5) | 561 (5.8) | 7 (0.5) | 543 (4.3) | 18 (0.7) | 534 (3.1) | 28 (0.7) | 528 (3.3) | 44 (1.4) | 525 (3.8) |
| Hungary | | 18 (1.0) | 582 (3.5) | 26 (0.8) | 562 (2.9) | 29 (0.8) | 541 (2.6) | 17 (0.7) | 520 (2.8) | 9 (0.7) | 486 (4.2) |
| Iceland | r | 33 (0.8) | 535 (2.4) | 40 (0.9) | 518 (2.1) | 23 (0.8) | 495 (2.7) | 4 (0.4) | 485 (6.3) | 1 (0.1) | ~ ~ |
| Iran, Islamic Rep. of | | 2 (0.3) | ~ ~ | 4 (0.4) | 493 (9.5) | 10 (0.7) | 463 (6.6) | 20 (1.0) | 448 (5.1) | 64 (1.9) | 393 (3.7) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 5 (0.4) | 581 (5.7) | 12 (0.7) | 576 (3.4) | 27 (0.8) | 552 (2.9) | 32 (0.8) | 534 (3.1) | 24 (1.0) | 517 (3.9) |
| Kuwait | r | 3 (0.3) | 417 (10.0) | 6 (0.5) | 420 (7.7) | 20 (0.6) | 418 (4.6) | 28 (0.8) | 408 (4.8) | 42 (1.0) | 384 (5.9) |
| Latvia | | 15 (0.8) | 577 (3.5) | 23 (0.9) | 552 (3.9) | 32 (1.1) | 546 (2.9) | 21 (1.0) | 531 (3.5) | 8 (0.9) | 514 (6.9) |
| Lithuania | | 6 (0.6) | 576 (6.7) | 14 (0.9) | 571 (4.4) | 28 (1.0) | 555 (3.1) | 32 (1.3) | 538 (2.7) | 21 (1.2) | 510 (3.9) |
| Macedonia, Rep. of | r | 4 (0.5) | 479 (11.9) | 8 (0.7) | 492 (8.7) | 27 (1.2) | 474 (5.6) | 31 (1.0) | 452 (5.4) | 30 (1.8) | 409 (7.6) |
| Moldova, Rep. of | | 2 (0.4) | ~ ~ | 5 (0.6) | 538 (10.4) | 15 (1.3) | 523 (6.9) | 27 (1.1) | 502 (4.3) | 50 (1.8) | 472 (4.4) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 18 (1.0) | 585 (4.0) | 30 (1.1) | 573 (2.9) | 30 (1.1) | 558 (2.9) | 16 (1.0) | 544 (3.5) | 5 (0.7) | 516 (7.8) |
| New Zealand | r | 34 (1.3) | 569 (5.0) | 29 (1.3) | 542 (5.2) | 23 (1.2) | 517 (5.1) | 9 (0.8) | 487 (7.4) | 4 (0.6) | 468 (9.8) |
| Norway | | 30 (1.2) | 522 (4.1) | 36 (1.0) | 506 (3.1) | 25 (0.9) | 487 (4.6) | 7 (0.5) | 473 (7.9) | 2 (0.4) | ~ ~ |
| Romania | | 3 (0.4) | 562 (10.2) | 9 (0.8) | 561 (5.8) | 21 (1.1) | 533 (4.7) | 27 (1.1) | 513 (4.6) | 40 (2.0) | 488 (7.9) |
| Russian Federation | | 12 (0.9) | 553 (4.9) | 19 (0.8) | 543 (4.8) | 29 (1.0) | 530 (4.0) | 23 (0.9) | 518 (4.8) | 17 (1.4) | 506 (9.3) |
| Scotland | s | 28 (1.4) | 580 (5.3) | 31 (1.4) | 545 (4.7) | 27 (1.7) | 521 (5.6) | 11 (0.8) | 506 (8.7) | 3 (0.5) | 487 (7.9) |
| Singapore | | 20 (1.0) | 583 (4.7) | 24 (0.7) | 553 (4.2) | 30 (0.7) | 521 (4.8) | 17 (0.8) | 491 (5.7) | 8 (0.6) | 448 (7.7) |
| Slovak Republic | | 7 (0.6) | 557 (5.2) | 19 (0.9) | 545 (3.8) | 38 (0.9) | 527 (2.9) | 25 (1.1) | 499 (3.2) | 11 (1.1) | 472 (8.2) |
| Slovenia | | 6 (0.5) | 539 (4.6) | 15 (0.8) | 531 (3.7) | 31 (0.9) | 516 (2.5) | 30 (0.8) | 490 (2.8) | 17 (0.8) | 463 (3.8) |
| Sweden | | 31 (1.1) | 579 (2.4) | 34 (0.8) | 568 (2.6) | 22 (0.7) | 551 (2.3) | 8 (0.5) | 540 (5.3) | 4 (0.8) | 513 (5.7) |
| Turkey | | 2 (0.2) | ~ ~ | 4 (0.4) | 510 (10.4) | 13 (0.8) | 488 (5.8) | 26 (1.0) | 457 (4.4) | 56 (1.8) | 434 (3.3) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 14 (0.2) | 552 (1.3) | 19 (0.2) | 535 (1.1) | 25 (0.2) | 514 (0.9) | 20 (0.2) | 495 (0.9) | 23 (0.2) | 466 (1.4) |

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

Background data provided by parents.

() 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.

reporting not having them. The biggest achievement difference (54 score points) was between those having and not having books of their own.

The final component of the Index of Home Educational Resources, parents' highest level of education, is presented in detail in Exhibit 4.11. On average, 23 percent of students came from homes where parents reported that one or both of them had finished university, 15 percent where one or both finished post-secondary school but not university, 36 percent where one or both finished upper-secondary school, 17 percent where one or both finished lower-secondary school, and 9 percent where parents finished some primary or lower secondary school, or did not go to school. The average reading achievement difference between students whose parents finished university and those in the lowest educational category was almost 100 score points.

Because educational resources are dependent to a large extent on economic considerations, Exhibits 4.12 through 4.14 present information on parents' employment situations and on fathers' and mothers' occupations. As shown in Exhibit 4.12, about one-third of students internationally (34%) were from homes where both parents were working full-time for pay, almost half (49%) where one but not both were working full-time, and just 7 percent where both parents were working less than full-time. One-tenth of the students were from homes with other situations. Average student reading achievement was highest among students from homes where both parents were working full-time for pay, and lowest where both were working less than full-time.

As shown in Exhibits 4.13 and 4.14, parents' responses to a question about the kind of work they did for their main job were grouped into seven categories: professional, small business owner, clerical, skilled, general laborer, never worked outside the home for pay, and not applicable. The distribution of responses for fathers and mothers was similar across several of the categories, including professional, small business owner, and laborer. For example, 25 percent of students had fathers in the professional category and 22 percent had mothers in this category. However, a greater percentage of students had fathers in the skilled category than mothers (34% vs. 8%), and greater percentages had mothers in the clerical category (28% vs. 12%) or who had never worked outside the home for pay (12% vs. 2%). Average student reading

Exhibit 4.10: Educational Resources in the Home
ISC 4th Grade
PIRLS 2001

| Countries | Computer | | | | Study Desk/Table | | | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Yes | | No | | Yes | | No | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | r 38 (1.9) | 444 (7.6) | 62 (1.9) | 427 (5.1) | r 37 (1.4) | 436 (6.7) | 63 (1.4) | 432 (5.6) |
| Belize | 26 (1.8) | 360 (8.1) | 74 (1.8) | 317 (5.2) | 56 (2.4) | 337 (5.4) | 44 (2.4) | 319 (7.0) |
| Bulgaria | 18 (1.0) | 574 (5.6) | 82 (1.0) | 548 (3.9) | 76 (1.7) | 562 (3.4) | 24 (1.7) | 526 (6.6) |
| Canada (O,Q) | 88 (0.5) | 549 (2.5) | 12 (0.5) | 521 (3.4) | 78 (0.8) | 550 (2.5) | 22 (0.8) | 532 (3.4) |
| Colombia | 21 (1.3) | 443 (9.3) | 79 (1.3) | 418 (4.1) | 54 (1.7) | 427 (5.3) | 46 (1.7) | 420 (4.9) |
| Cyprus | 61 (1.2) | 502 (3.6) | 39 (1.2) | 490 (3.3) | 86 (0.8) | 502 (2.9) | 14 (0.8) | 460 (5.0) |
| Czech Republic | 65 (1.4) | 544 (2.6) | 35 (1.4) | 528 (3.0) | 91 (0.7) | 542 (2.4) | 9 (0.7) | 503 (4.9) |
| England | 85 (0.8) | 558 (3.4) | 15 (0.8) | 530 (5.4) | 89 (0.7) | 557 (3.5) | 11 (0.7) | 525 (5.7) |
| France | 76 (1.0) | 532 (2.5) | 24 (1.0) | 511 (3.1) | 85 (0.8) | 530 (2.4) | 15 (0.8) | 507 (4.4) |
| Germany | 85 (0.6) | 547 (1.9) | 15 (0.6) | 515 (3.5) | 93 (0.5) | 545 (1.8) | 7 (0.5) | 499 (4.2) |
| Greece | 55 (2.0) | 533 (3.7) | 45 (2.0) | 519 (4.1) | 83 (1.0) | 533 (3.2) | 17 (1.0) | 493 (6.0) |
| Hong Kong, SAR | 74 (1.3) | 530 (3.0) | 26 (1.3) | 525 (4.2) | 70 (1.0) | 529 (3.0) | 30 (1.0) | 528 (4.2) |
| Hungary | 58 (1.2) | 557 (2.6) | 42 (1.2) | 526 (2.4) | 92 (0.5) | 546 (2.1) | 8 (0.5) | 519 (4.1) |
| Iceland | 89 (0.5) | 519 (1.2) | 11 (0.5) | 485 (4.7) | 92 (0.5) | 519 (1.2) | 8 (0.5) | 477 (5.2) |
| Iran, Islamic Rep. of | 18 (1.3) | 430 (7.7) | 82 (1.3) | 410 (3.8) | 42 (1.9) | 446 (5.3) | 58 (1.9) | 392 (3.6) |
| Israel | 74 (1.1) | 529 (3.0) | 26 (1.1) | 466 (4.4) | 91 (0.7) | 519 (2.7) | 9 (0.7) | 450 (8.8) |
| Italy | 80 (0.9) | 542 (2.5) | 20 (0.9) | 541 (3.8) | 81 (0.8) | 543 (2.3) | 19 (0.8) | 534 (3.9) |
| Kuwait | r 64 (1.5) | 408 (4.3) | 36 (1.5) | 389 (6.2) | r 75 (1.0) | 408 (4.2) | 25 (1.0) | 381 (6.4) |
| Latvia | 29 (1.2) | 549 (3.3) | 71 (1.2) | 544 (2.6) | 92 (1.1) | 548 (2.3) | 8 (1.1) | 523 (5.8) |
| Lithuania | 30 (1.4) | 551 (3.8) | 70 (1.4) | 542 (2.7) | 92 (0.6) | 548 (2.4) | 8 (0.6) | 510 (5.7) |
| Macedonia, Rep. of | 40 (1.6) | 450 (6.2) | 60 (1.6) | 447 (4.2) | 84 (0.9) | 451 (4.2) | 16 (0.9) | 429 (8.2) |
| Moldova, Rep. of | 8 (0.8) | 482 (8.7) | 92 (0.8) | 493 (4.1) | 82 (1.6) | 496 (4.2) | 18 (1.6) | 472 (6.4) |
| Morocco | 19 (1.5) | 338 (10.9) | 81 (1.5) | 358 (11.4) | 42 (2.5) | 351 (7.0) | 58 (2.5) | 358 (14.8) |
| Netherlands | 92 (0.5) | 557 (2.5) | 8 (0.5) | 524 (5.0) | 95 (0.5) | 556 (2.5) | 5 (0.5) | 530 (6.4) |
| New Zealand | 81 (1.1) | 538 (4.0) | 19 (1.1) | 509 (6.2) | 78 (0.9) | 536 (3.8) | 22 (0.9) | 512 (5.0) |
| Norway | 92 (0.6) | 503 (3.0) | 8 (0.6) | 472 (6.9) | 89 (0.8) | 505 (2.9) | 11 (0.8) | 469 (6.0) |
| Romania | 19 (1.4) | 535 (5.2) | 81 (1.4) | 508 (5.0) | 77 (1.5) | 526 (4.8) | 23 (1.5) | 471 (6.3) |
| Russian Federation | 23 (0.8) | 519 (6.1) | 77 (0.8) | 531 (4.2) | 82 (1.2) | 531 (4.2) | 18 (1.2) | 518 (7.0) |
| Scotland | 76 (1.2) | 536 (3.7) | 24 (1.2) | 508 (4.8) | 75 (1.3) | 534 (3.5) | 25 (1.3) | 515 (5.2) |
| Singapore | 84 (0.8) | 537 (4.9) | 16 (0.8) | 486 (6.5) | 88 (0.6) | 538 (4.5) | 12 (0.6) | 468 (8.6) |
| Slovak Republic | 45 (1.4) | 528 (3.6) | 55 (1.4) | 511 (3.0) | 79 (1.2) | 524 (3.0) | 21 (1.2) | 498 (4.6) |
| Slovenia | 65 (1.2) | 512 (2.2) | 35 (1.2) | 484 (3.3) | 94 (0.5) | 505 (2.0) | 6 (0.5) | 463 (7.3) |
| Sweden | 95 (0.5) | 563 (2.1) | 5 (0.5) | 531 (6.5) | 93 (0.5) | 563 (2.2) | 7 (0.5) | 544 (5.5) |
| Turkey | 22 (1.8) | 467 (6.3) | 78 (1.8) | 445 (3.3) | 57 (1.7) | 465 (4.5) | 43 (1.7) | 431 (3.3) |
| United States | 85 (1.1) | 550 (3.5) | 15 (1.1) | 504 (5.6) | 79 (1.2) | 549 (3.8) | 21 (1.2) | 518 (5.1) |
| International Avg. | 57 (0.2) | 509 (0.8) | 43 (0.2) | 488 (0.8) | 78 (0.2) | 507 (0.6) | 22 (0.2) | 478 (1.0) |

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

Background data provided by students.

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

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

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

Exhibit 4.10: Educational Resources in the Home (Continued)

ISC

4th Grade
PIRLS 2001

| Countries | Books of Your Very Own | | | | Daily Newspaper | | | |
|-----------------------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Yes | | No | | Yes | | No | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 74 (1.3) | 443 (6.0) | 26 (1.3) | 408 (6.4) | 70 (1.1) | 439 (5.9) | 30 (1.1) | 419 (5.8) |
| Belize | 70 (2.1) | 338 (5.9) | 30 (2.1) | 309 (6.2) | 39 (2.2) | 341 (7.7) | 61 (2.2) | 322 (6.1) |
| Bulgaria | 85 (1.4) | 561 (3.4) | 15 (1.4) | 507 (8.8) | 41 (1.6) | 568 (3.8) | 59 (1.6) | 543 (4.5) |
| Canada (O,Q) | 95 (0.4) | 550 (2.4) | 5 (0.4) | 481 (4.5) | 61 (0.9) | 555 (2.8) | 39 (0.9) | 531 (2.5) |
| Colombia | 74 (1.3) | 430 (4.9) | 26 (1.3) | 405 (4.1) | 26 (1.5) | 407 (5.2) | 74 (1.5) | 429 (5.0) |
| Cyprus | 92 (0.6) | 501 (2.8) | 8 (0.6) | 431 (6.9) | 45 (1.3) | 505 (3.2) | 55 (1.3) | 488 (3.5) |
| Czech Republic | 95 (0.5) | 542 (2.2) | 5 (0.5) | 467 (6.8) | 61 (1.3) | 551 (2.5) | 39 (1.3) | 519 (2.7) |
| England | 96 (0.5) | 557 (3.3) | 4 (0.5) | 463 (7.7) | 78 (1.0) | 559 (3.5) | 22 (1.0) | 533 (5.0) |
| France | 89 (0.7) | 533 (2.3) | 11 (0.7) | 480 (4.2) | 37 (1.2) | 528 (3.4) | 63 (1.2) | 526 (2.4) |
| Germany | 95 (0.4) | 545 (1.8) | 5 (0.4) | 477 (3.9) | 63 (1.0) | 555 (1.9) | 37 (1.0) | 520 (2.7) |
| Greece | 89 (0.9) | 533 (3.3) | 11 (0.9) | 471 (5.8) | 30 (1.9) | 540 (4.5) | 70 (1.9) | 521 (3.5) |
| Hong Kong, SAR | 87 (0.6) | 533 (2.9) | 13 (0.6) | 505 (5.0) | 55 (1.4) | 535 (3.1) | 45 (1.4) | 522 (3.6) |
| Hungary | 95 (0.5) | 548 (2.1) | 5 (0.5) | 482 (7.2) | 61 (1.2) | 555 (2.5) | 39 (1.2) | 527 (2.3) |
| Iceland | 94 (0.4) | 519 (1.2) | 6 (0.4) | 449 (5.9) | 80 (0.8) | 523 (1.4) | 20 (0.8) | 486 (3.0) |
| Iran, Islamic Rep. of | 69 (2.2) | 437 (4.4) | 31 (2.2) | 366 (4.1) | 64 (2.4) | 434 (3.9) | 36 (2.4) | 381 (5.6) |
| Israel | 86 (0.7) | 519 (3.0) | 14 (0.7) | 472 (4.8) | 66 (1.0) | 520 (2.7) | 34 (1.0) | 497 (4.4) |
| Italy | 82 (0.7) | 547 (2.3) | 18 (0.7) | 516 (4.4) | 55 (1.1) | 554 (2.6) | 45 (1.1) | 526 (3.1) |
| Kuwait | 70 (1.5) | 408 (3.9) | 30 (1.5) | 386 (7.0) | 68 (1.3) | 405 (4.2) | 32 (1.3) | 394 (5.7) |
| Latvia | 94 (0.8) | 549 (2.2) | 6 (0.8) | 491 (5.5) | 66 (1.3) | 555 (2.2) | 34 (1.3) | 527 (2.7) |
| Lithuania | 92 (0.7) | 548 (2.4) | 8 (0.7) | 500 (5.6) | 66 (1.2) | 551 (2.8) | 34 (1.2) | 531 (3.1) |
| Macedonia, Rep. of | 82 (1.3) | 458 (4.5) | 18 (1.3) | 406 (8.3) | 60 (1.6) | 454 (4.5) | 40 (1.6) | 439 (5.7) |
| Moldova, Rep. of | 82 (1.4) | 499 (4.0) | 18 (1.4) | 463 (6.6) | 49 (2.3) | 506 (4.6) | 51 (2.3) | 479 (4.2) |
| Morocco | 54 (2.4) | 351 (7.6) | 46 (2.4) | 360 (16.6) | 23 (1.7) | 344 (11.4) | 77 (1.7) | 359 (11.0) |
| Netherlands | 93 (0.6) | 559 (2.4) | 7 (0.6) | 503 (4.7) | 68 (1.3) | 562 (2.3) | 32 (1.3) | 538 (3.1) |
| New Zealand | 93 (0.8) | 538 (3.2) | 7 (0.8) | 455 (9.0) | 77 (1.2) | 540 (3.4) | 23 (1.2) | 501 (6.7) |
| Norway | 93 (0.7) | 505 (2.8) | 7 (0.7) | 434 (6.2) | 78 (1.1) | 509 (3.0) | 22 (1.1) | 472 (3.9) |
| Romania | 83 (1.3) | 523 (4.6) | 17 (1.3) | 467 (8.6) | 32 (1.7) | 515 (6.1) | 68 (1.7) | 512 (4.5) |
| Russian Federation | 89 (0.7) | 533 (4.2) | 11 (0.7) | 494 (7.7) | 51 (1.3) | 532 (5.1) | 49 (1.3) | 525 (4.3) |
| Scotland | 92 (0.6) | 535 (3.5) | 8 (0.6) | 457 (8.1) | 70 (1.4) | 535 (3.9) | 30 (1.4) | 516 (5.1) |
| Singapore | 89 (0.7) | 540 (4.3) | 11 (0.7) | 444 (8.8) | 81 (0.8) | 541 (4.6) | 19 (0.8) | 478 (6.7) |
| Slovak Republic | 93 (0.9) | 523 (2.7) | 7 (0.9) | 456 (9.6) | 57 (1.6) | 529 (3.1) | 43 (1.6) | 506 (3.3) |
| Slovenia | 87 (0.8) | 508 (2.0) | 13 (0.8) | 460 (6.4) | 64 (1.4) | 511 (2.2) | 36 (1.4) | 486 (3.2) |
| Sweden | 93 (0.7) | 563 (2.2) | 7 (0.7) | 537 (6.4) | 88 (0.8) | 564 (2.1) | 12 (0.8) | 542 (4.9) |
| Turkey | 71 (1.4) | 465 (3.9) | 29 (1.4) | 414 (4.8) | 44 (2.1) | 461 (4.7) | 56 (2.1) | 442 (3.7) |
| United States | 92 (0.9) | 549 (3.5) | 8 (0.9) | 469 (6.3) | 62 (1.6) | 554 (3.8) | 38 (1.6) | 524 (4.3) |
| International Avg. | 86 (0.2) | 508 (0.6) | 14 (0.2) | 454 (1.2) | 58 (0.2) | 510 (0.7) | 42 (0.2) | 487 (0.8) |

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

Exhibit 4.11: Highest Level of Education of Either Parent**ISC** 4th Grade
PIRLS 2001

| Countries | | Finished University or Higher | | Finished Post-Secondary School but Not University | | Finished Upper-Secondary School | | Finished Lower-Secondary School | | Finished Some Primary or Lower-Secondary or Did Not Go to School | |
|---------------------------------|---|-------------------------------|---------------------|---|---------------------|---------------------------------|---------------------|---------------------------------|---------------------|--|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 14 (1.7) | 501 (8.9) | 0 (0.0) | ~ ~ | 24 (1.6) | 451 (6.5) | 20 (1.4) | 419 (7.3) | 42 (2.7) | 402 (5.8) |
| Belize | s | 10 (1.2) | 390 (11.6) | 9 (1.0) | 385 (13.1) | 15 (1.2) | 366 (10.2) | 47 (2.0) | 311 (6.2) | 19 (1.7) | 291 (7.5) |
| Bulgaria | | 24 (1.4) | 595 (4.0) | 6 (0.4) | 577 (6.1) | 53 (1.9) | 550 (3.3) | 13 (1.5) | 500 (11.4) | 3 (0.9) | 473 (18.9) |
| Canada (O,Q) | r | 32 (1.4) | 578 (2.5) | 37 (0.9) | 549 (2.7) | 26 (0.9) | 528 (2.3) | 3 (0.3) | 508 (9.0) | 2 (0.2) | ~ ~ |
| Colombia | r | 16 (2.0) | 462 (14.2) | 4 (0.5) | 453 (10.7) | 14 (0.9) | 443 (5.6) | 14 (0.9) | 428 (6.7) | 51 (1.7) | 403 (3.8) |
| Cyprus | s | 38 (1.8) | 518 (4.2) | 0 (0.0) | ~ ~ | 45 (1.3) | 485 (4.2) | 12 (0.9) | 458 (5.9) | 5 (0.5) | 451 (7.7) |
| Czech Republic | | 22 (1.4) | 569 (3.4) | 7 (0.6) | 554 (5.9) | 66 (1.6) | 532 (2.5) | 4 (0.5) | 499 (11.0) | 0 (0.0) | ~ ~ |
| England | s | 36 (1.8) | 603 (6.1) | 3 (0.5) | 577 (15.8) | 17 (1.0) | 568 (6.0) | 35 (1.7) | 558 (4.5) | 8 (0.8) | 514 (9.1) |
| France | r | 23 (1.7) | 571 (3.0) | 16 (0.9) | 548 (3.8) | 20 (0.9) | 530 (3.1) | 31 (1.4) | 505 (2.8) | 9 (0.7) | 498 (5.0) |
| Germany | s | 27 (1.2) | 575 (2.2) | 36 (1.2) | 542 (2.4) | 23 (0.6) | 546 (2.5) | 12 (0.6) | 501 (4.7) | 2 (0.3) | ~ ~ |
| Greece | r | 23 (1.9) | 572 (3.4) | 22 (1.0) | 535 (5.1) | 28 (1.3) | 521 (3.9) | 17 (1.4) | 494 (4.9) | 10 (1.4) | 483 (8.3) |
| Hong Kong, SAR | | 12 (1.0) | 540 (4.0) | 7 (0.5) | 539 (5.2) | 30 (1.0) | 533 (2.8) | 27 (0.8) | 530 (3.6) | 23 (1.0) | 519 (4.8) |
| Hungary | | 30 (1.4) | 582 (2.9) | 3 (0.3) | 545 (5.9) | 57 (1.1) | 538 (2.0) | 8 (0.6) | 492 (3.8) | 1 (0.2) | ~ ~ |
| Iceland | r | 33 (0.8) | 544 (2.1) | 10 (0.5) | 520 (4.0) | 42 (0.8) | 506 (2.2) | 13 (0.6) | 484 (4.3) | 2 (0.2) | ~ ~ |
| Iran, Islamic Rep. of | | 6 (0.6) | 503 (6.0) | 5 (0.5) | 484 (7.2) | 25 (1.5) | 457 (4.6) | 17 (1.0) | 421 (4.2) | 47 (2.2) | 376 (3.9) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 18 (1.0) | 569 (3.5) | 4 (0.3) | 540 (7.8) | 46 (1.1) | 550 (2.4) | 30 (1.1) | 520 (3.4) | 3 (0.4) | 499 (10.0) |
| Kuwait | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Latvia | | 26 (1.2) | 577 (3.4) | 34 (1.0) | 546 (2.9) | 35 (1.2) | 532 (3.5) | 5 (0.5) | 505 (7.8) | 0 (0.1) | ~ ~ |
| Lithuania | | 29 (1.8) | 572 (3.6) | 30 (1.1) | 547 (3.5) | 40 (1.6) | 524 (3.4) | 1 (0.2) | ~ ~ | 0 (0.1) | ~ ~ |
| Macedonia, Rep. of | s | 11 (1.0) | 487 (7.3) | 14 (1.5) | 524 (6.5) | 26 (1.4) | 468 (5.7) | 26 (1.2) | 466 (6.9) | 23 (1.6) | 397 (7.4) |
| Moldova, Rep. of | | 19 (1.6) | 532 (5.3) | 10 (0.9) | 503 (5.0) | 64 (1.7) | 484 (4.4) | 4 (0.6) | 465 (12.7) | 3 (0.5) | 469 (11.0) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 12 (0.9) | 592 (4.6) | 28 (1.1) | 580 (2.9) | 14 (0.8) | 570 (4.0) | 45 (1.7) | 544 (2.8) | 1 (0.3) | ~ ~ |
| New Zealand | r | 37 (1.4) | 571 (4.3) | 22 (1.1) | 543 (5.1) | 34 (1.3) | 514 (4.4) | 4 (0.5) | 474 (10.9) | 3 (0.4) | 487 (13.6) |
| Norway | | 53 (1.7) | 522 (3.8) | 0 (0.0) | ~ ~ | 44 (1.6) | 484 (3.3) | 3 (0.4) | 442 (10.4) | 0 (0.1) | ~ ~ |
| Romania | | 11 (1.6) | 576 (4.9) | 5 (0.4) | 545 (9.2) | 64 (1.6) | 514 (4.5) | 15 (1.4) | 483 (10.3) | 4 (0.7) | 474 (14.6) |
| ^a Russian Federation | | 27 (1.3) | 549 (4.5) | 42 (1.0) | 525 (4.4) | 27 (1.0) | 515 (6.1) | 4 (0.5) | 502 (9.5) | 0 (0.1) | ~ ~ |
| Scotland | s | 27 (1.8) | 581 (6.1) | 29 (1.4) | 540 (5.9) | 19 (1.1) | 536 (6.0) | 19 (1.2) | 525 (5.4) | 6 (0.8) | 478 (9.9) |
| Singapore | | 20 (1.2) | 590 (5.2) | 21 (0.6) | 552 (4.4) | 45 (0.9) | 520 (5.1) | 0 (0.0) | ~ ~ | 14 (0.8) | 470 (7.0) |
| Slovak Republic | | 19 (1.2) | 556 (3.8) | 6 (0.4) | 544 (5.4) | 69 (1.4) | 516 (2.5) | 4 (0.8) | 465 (17.2) | 1 (0.3) | ~ ~ |
| Slovenia | | 25 (1.1) | 537 (2.9) | 0 (0.0) | ~ ~ | 65 (1.1) | 498 (2.1) | 9 (0.6) | 460 (5.3) | 1 (0.2) | ~ ~ |
| Sweden | | 35 (1.4) | 583 (2.6) | 23 (0.6) | 564 (2.8) | 36 (1.2) | 552 (2.6) | 6 (0.5) | 525 (4.6) | 0 (0.1) | ~ ~ |
| ^b Turkey | | 12 (1.3) | 512 (7.0) | 23 (1.1) | 474 (4.5) | 0 (0.0) | ~ ~ | 65 (2.0) | 437 (3.5) | 0 (0.0) | ~ ~ |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 23 (0.3) | 549 (1.0) | 15 (0.1) | 531 (1.2) | 36 (0.2) | 511 (0.8) | 17 (0.2) | 480 (1.5) | 9 (0.2) | 452 (4.4) |

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

Background data provided by parents.

- a For the Russian Federation, Finished Upper-Secondary School includes those who received initial vocational training on the basis of lower-secondary school.
- b For Turkey, Finished Lower-Secondary School includes those who finished some primary or lower-secondary or did not go to school. Finished Post-Secondary School but Not University includes those who finished upper-secondary 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 4.12: Parents' Employment Situations

ISC
4th Grade
PIRLS 2001

| Countries | Both Working Full-Time for Pay | | One, but Not Both, Working Full-Time for Pay | | Both Working Less than Full-Time for Pay | | Other Situations | |
|-------------------------|--------------------------------|---------------------|--|---------------------|--|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | x x | x x | x x | x x | x x | x x | x x | x x |
| Belize s | 21 (1.7) | 385 (8.6) | 57 (1.6) | 328 (6.0) | 5 (0.6) | 285 (14.1) | 17 (1.1) | 305 (8.8) |
| Bulgaria | 41 (1.5) | 579 (3.4) | 33 (1.0) | 556 (3.9) | 22 (1.5) | 512 (7.4) | 4 (0.6) | 541 (8.6) |
| Canada (O,Q) r | 50 (1.0) | 553 (2.4) | 45 (1.0) | 552 (2.6) | 1 (0.2) | ~ ~ | 3 (0.3) | 524 (6.6) |
| Colombia s | 15 (1.2) | 445 (8.0) | 51 (2.2) | 437 (5.3) | 15 (1.4) | 419 (6.3) | 19 (2.8) | 412 (6.0) |
| Cyprus s | 43 (1.9) | 508 (4.2) | 46 (1.7) | 490 (4.2) | 3 (0.4) | 456 (9.0) | 7 (0.6) | 492 (6.2) |
| Czech Republic r | 60 (1.3) | 543 (2.7) | 34 (1.2) | 544 (3.0) | 2 (0.3) | ~ ~ | 5 (0.5) | 536 (9.0) |
| England s | 26 (1.4) | 579 (4.3) | 65 (1.4) | 578 (4.5) | 2 (0.4) | ~ ~ | 6 (0.6) | 516 (10.7) |
| France r | 37 (1.0) | 531 (2.6) | 54 (1.1) | 533 (3.0) | 2 (0.3) | ~ ~ | 7 (0.6) | 515 (6.2) |
| Germany r | 16 (0.6) | 540 (2.3) | 73 (0.7) | 550 (1.9) | 1 (0.2) | ~ ~ | 10 (0.5) | 526 (4.4) |
| Greece r | 40 (2.4) | 546 (4.2) | 48 (1.6) | 520 (4.0) | 6 (1.0) | 492 (14.0) | 5 (0.9) | 530 (6.9) |
| Hong Kong, SAR r | 29 (1.2) | 535 (2.6) | 55 (0.9) | 531 (3.4) | 4 (0.4) | 524 (5.7) | 12 (0.7) | 529 (4.2) |
| Hungary | 53 (1.0) | 556 (2.5) | 38 (0.9) | 547 (2.9) | 3 (0.3) | 505 (6.5) | 6 (0.4) | 518 (5.5) |
| Iceland r | 48 (0.8) | 522 (2.1) | 49 (0.8) | 515 (2.1) | 1 (0.2) | ~ ~ | 2 (0.3) | ~ ~ |
| Iran, Islamic Rep. of s | 8 (1.2) | 414 (12.7) | 50 (1.9) | 438 (5.2) | 7 (0.8) | 405 (10.3) | 34 (2.0) | 399 (6.7) |
| Israel | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | 32 (1.1) | 558 (3.0) | 54 (1.1) | 543 (2.5) | 4 (0.4) | 514 (6.1) | 10 (0.6) | 533 (4.6) |
| Kuwait s | 16 (0.9) | 422 (6.2) | 50 (1.0) | 402 (4.8) | 16 (0.8) | 413 (5.7) | 18 (1.1) | 384 (6.3) |
| Latvia | 37 (1.0) | 560 (3.5) | 47 (1.0) | 546 (2.6) | 7 (0.9) | 517 (5.7) | 10 (0.8) | 546 (5.6) |
| Lithuania | 36 (1.5) | 559 (3.0) | 42 (1.3) | 547 (3.0) | 9 (0.7) | 517 (6.8) | 13 (0.9) | 528 (5.3) |
| Macedonia, Rep. of s | 29 (1.8) | 503 (5.1) | 35 (1.7) | 454 (5.8) | 25 (1.8) | 441 (8.8) | 12 (1.7) | 456 (8.4) |
| Moldova, Rep. of r | 16 (1.3) | 517 (7.1) | 28 (1.2) | 508 (5.4) | 45 (1.9) | 481 (4.1) | 12 (1.1) | 492 (6.8) |
| Morocco | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands s | 6 (0.5) | 549 (7.4) | 83 (0.8) | 566 (2.4) | 4 (0.5) | 580 (5.9) | 8 (0.6) | 551 (3.9) |
| New Zealand r | 29 (1.4) | 538 (4.0) | 62 (1.4) | 548 (3.5) | 3 (0.5) | 504 (11.1) | 7 (0.5) | 507 (9.6) |
| Norway | 42 (1.2) | 511 (3.1) | 53 (1.3) | 501 (3.5) | 1 (0.2) | ~ ~ | 4 (0.5) | 497 (8.8) |
| Romania r | 32 (1.5) | 538 (5.4) | 36 (1.7) | 523 (5.1) | 18 (1.3) | 483 (8.5) | 14 (1.3) | 500 (10.7) |
| Russian Federation | 45 (1.4) | 534 (4.3) | 45 (1.1) | 528 (4.3) | 6 (0.8) | 508 (9.8) | 5 (0.4) | 525 (8.6) |
| Scotland s | 31 (1.3) | 548 (4.0) | 61 (1.4) | 550 (4.2) | 2 (0.3) | ~ ~ | 7 (0.9) | 501 (12.0) |
| Singapore | 35 (0.9) | 552 (4.6) | 58 (0.8) | 528 (5.2) | 1 (0.1) | ~ ~ | 6 (0.3) | 506 (6.4) |
| Slovak Republic | 58 (1.1) | 533 (3.2) | 31 (1.1) | 519 (2.9) | 7 (0.8) | 480 (8.6) | 4 (0.4) | 491 (11.0) |
| Slovenia | 70 (0.9) | 512 (2.0) | 26 (0.9) | 489 (3.3) | 2 (0.3) | ~ ~ | 2 (0.3) | ~ ~ |
| Sweden | 42 (1.0) | 569 (2.5) | 53 (1.0) | 565 (2.3) | 2 (0.3) | ~ ~ | 3 (0.3) | 545 (7.3) |
| Turkey r | 8 (0.7) | 487 (8.7) | 52 (1.7) | 459 (3.9) | 4 (0.5) | 435 (8.1) | 36 (1.7) | 451 (5.3) |
| United States | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | 34 (0.2) | 523 (0.9) | 49 (0.2) | 513 (0.7) | 7 (0.1) | 474 (2.0) | 10 (0.2) | 495 (1.4) |

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

Background data provided by parents.

() 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 4.13: Fathers' Occupation***ISC** 4th Grade
PIRLS 2001

| Countries | Professional | | Small Business Owner | | Clerical | | Skilled | |
|-------------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | x x | x x | x x | x x | x x | x x | x x | x x |
| Belize s | 14 (1.3) | 398 (11.0) | 10 (1.0) | 352 (9.5) | 7 (0.9) | 363 (11.9) | 32 (2.1) | 325 (7.9) |
| Bulgaria | 17 (1.1) | 594 (5.1) | 12 (0.6) | 567 (4.8) | 5 (0.5) | 572 (9.0) | 36 (1.4) | 550 (3.8) |
| Canada (O,Q) r | 36 (1.3) | 575 (3.0) | 12 (0.6) | 549 (3.6) | 8 (0.5) | 554 (4.5) | 32 (1.0) | 539 (2.3) |
| Colombia s | 13 (1.8) | 467 (15.8) | 11 (0.8) | 443 (8.3) | 11 (0.9) | 443 (5.9) | 27 (1.6) | 428 (5.4) |
| Cyprus s | 21 (1.3) | 519 (5.3) | 17 (1.0) | 512 (6.2) | 18 (1.0) | 494 (5.9) | 35 (1.5) | 479 (4.5) |
| Czech Republic r | 26 (1.5) | 570 (3.5) | 11 (0.7) | 550 (4.3) | 7 (0.5) | 539 (6.6) | 43 (1.7) | 527 (3.0) |
| England s | 40 (1.9) | 597 (5.7) | 10 (0.8) | 568 (8.2) | 10 (0.9) | 575 (7.0) | 28 (1.4) | 561 (5.0) |
| France r | 35 (1.8) | 560 (3.3) | 9 (0.7) | 532 (4.7) | 10 (0.7) | 520 (4.9) | 30 (1.6) | 512 (3.3) |
| Germany r | 25 (1.1) | 576 (2.5) | 10 (0.4) | 551 (3.7) | 18 (0.6) | 553 (3.2) | 36 (1.1) | 527 (2.3) |
| Greece r | 21 (1.6) | 567 (3.6) | 17 (1.3) | 540 (5.4) | 19 (1.0) | 530 (6.0) | 36 (1.9) | 503 (4.0) |
| Hong Kong, SAR | 18 (1.2) | 539 (3.7) | 13 (0.8) | 534 (4.2) | 12 (0.6) | 527 (3.6) | 33 (1.2) | 532 (3.5) |
| Hungary | 20 (1.1) | 583 (3.6) | 13 (0.7) | 560 (3.5) | 14 (0.8) | 545 (3.7) | 36 (1.2) | 537 (2.6) |
| Iceland r | 33 (0.9) | 540 (2.3) | 12 (0.6) | 508 (4.4) | 8 (0.5) | 514 (4.5) | 36 (0.9) | 505 (2.4) |
| Iran, Islamic Rep. of r | 10 (0.9) | 478 (6.6) | 6 (0.6) | 442 (6.9) | 20 (1.2) | 459 (5.5) | 31 (1.7) | 400 (4.9) |
| Israel | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | 20 (0.9) | 569 (3.0) | 12 (0.7) | 546 (5.5) | 24 (0.9) | 550 (3.7) | 37 (1.4) | 530 (2.7) |
| Kuwait s | 38 (1.2) | 416 (5.4) | 8 (0.4) | 396 (5.3) | 12 (0.5) | 394 (6.1) | 3 (0.3) | 415 (10.7) |
| Latvia r | 15 (0.8) | 578 (3.7) | 7 (0.7) | 556 (5.4) | 7 (0.6) | 561 (4.5) | 40 (1.0) | 542 (3.5) |
| Lithuania r | 17 (1.3) | 572 (4.8) | 9 (0.7) | 562 (5.3) | 12 (0.7) | 557 (4.1) | 41 (1.3) | 536 (4.0) |
| Macedonia, Rep. of s | 17 (1.4) | 514 (6.9) | 7 (0.8) | 452 (10.3) | 19 (1.2) | 478 (7.2) | 31 (1.6) | 454 (6.3) |
| Moldova, Rep. of | 12 (1.2) | 517 (7.7) | 3 (0.4) | 513 (11.9) | 6 (0.6) | 520 (8.7) | 41 (1.4) | 487 (4.3) |
| Morocco | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands s | 42 (1.8) | 582 (2.8) | 12 (0.8) | 559 (4.2) | 13 (0.7) | 559 (4.4) | 25 (1.2) | 546 (4.7) |
| New Zealand r | 31 (1.2) | 571 (4.8) | 15 (1.0) | 562 (5.8) | 7 (0.7) | 540 (6.7) | 33 (1.4) | 529 (4.6) |
| Norway r | 38 (1.5) | 527 (3.8) | 11 (0.6) | 499 (6.1) | 9 (0.6) | 503 (6.6) | 32 (1.4) | 488 (3.0) |
| Romania r | 15 (1.4) | 533 (8.4) | 5 (0.4) | 540 (6.7) | 15 (1.1) | 529 (8.7) | 55 (2.0) | 509 (5.0) |
| Russian Federation r | 21 (1.1) | 545 (5.0) | 4 (0.4) | 550 (5.8) | 9 (0.6) | 523 (4.7) | 50 (1.5) | 525 (4.8) |
| Scotland s | 40 (1.8) | 574 (5.1) | 9 (0.8) | 546 (6.7) | 8 (0.6) | 545 (10.0) | 30 (1.5) | 528 (4.3) |
| Singapore | 39 (1.3) | 570 (4.3) | 16 (0.6) | 546 (4.3) | 15 (0.6) | 521 (5.4) | 18 (0.8) | 503 (6.7) |
| Slovak Republic | 21 (1.1) | 552 (4.1) | 12 (0.6) | 531 (4.7) | 7 (0.5) | 528 (5.1) | 46 (1.3) | 515 (3.0) |
| Slovenia | 25 (1.1) | 532 (3.6) | 10 (0.6) | 510 (6.2) | 16 (0.9) | 500 (4.2) | 37 (1.0) | 494 (2.9) |
| Sweden r | 37 (1.5) | 583 (2.3) | 15 (0.7) | 559 (3.5) | 10 (0.6) | 562 (3.5) | 31 (1.5) | 552 (2.9) |
| Turkey r | 10 (1.2) | 505 (8.6) | 17 (0.9) | 463 (5.4) | 15 (1.1) | 468 (4.7) | 27 (1.8) | 445 (6.4) |
| United States | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | 25 (0.2) | 542 (1.0) | 11 (0.1) | 519 (1.1) | 12 (0.1) | 517 (1.2) | 34 (0.3) | 501 (0.8) |

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

*Based on parents' responses to the following: What kind of work does the child's father/stepfather/male guardian do for their main job? a) Has never worked outside the home for pay; b) Small business owner; c) Clerk; d) Service or sales worker; e) Skilled agricultural or fishery worker; f) Craft or trade worker; g) Plant or machine operator; h) General laborer; i) Corporate

manager or senior official; j) Professional; k) Technician or associate professional; l) not applicable. Some categories were combined so that Professional includes options i through k, Clerical includes options c and d, and Skilled includes options e through g.

() 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 4.13: Fathers' Occupation (Continued)**ISC****4th Grade**
PIRLS 2001

| Countries | General Laborer | | Never Worked Outside Home for Pay | | Not Applicable | |
|-------------------------|---------------------|---------------------|-----------------------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | x x | x x | x x | x x | x x | x x |
| Belize s | 19 (1.7) | 293 (8.2) | 10 (1.2) | 296 (10.4) | 6 (0.8) | 312 (12.8) |
| Bulgaria | 12 (1.5) | 499 (11.7) | 4 (0.6) | 506 (14.3) | 13 (0.9) | 561 (5.6) |
| Canada (O,Q) r | 6 (0.5) | 528 (6.4) | 0 (0.1) | ~ ~ | 6 (0.4) | 529 (4.7) |
| Colombia s | 16 (1.8) | 409 (7.3) | 13 (1.7) | 394 (9.7) | 9 (1.3) | 411 (9.4) |
| Cyprus s | 3 (0.6) | 471 (11.9) | 1 (0.2) | ~ ~ | 5 (0.6) | 486 (9.1) |
| Czech Republic r | 3 (0.5) | 528 (15.8) | 1 (0.2) | ~ ~ | 9 (0.7) | 533 (5.6) |
| England s | 5 (0.6) | 538 (10.7) | 0 (0.2) | ~ ~ | 6 (0.7) | 533 (10.2) |
| France r | 3 (0.4) | 499 (7.3) | 1 (0.2) | ~ ~ | 12 (0.7) | 518 (3.6) |
| Germany r | 2 (0.2) | ~ ~ | 0 (0.1) | ~ ~ | 9 (0.5) | 533 (4.0) |
| Greece r | 5 (0.6) | 517 (14.9) | 1 (0.4) | ~ ~ | 1 (0.3) | ~ ~ |
| Hong Kong, SAR | 13 (0.7) | 528 (5.1) | 2 (0.3) | ~ ~ | 9 (0.5) | 527 (4.5) |
| Hungary | 7 (0.7) | 497 (6.5) | 1 (0.2) | ~ ~ | 10 (0.6) | 536 (4.3) |
| Iceland r | 5 (0.4) | 489 (7.3) | 0 (0.1) | ~ ~ | 6 (0.4) | 512 (8.4) |
| Iran, Islamic Rep. of r | 20 (1.6) | 385 (7.0) | 3 (0.4) | 371 (14.5) | 9 (0.9) | 411 (8.1) |
| Israel | x x | x x | x x | x x | x x | x x |
| Italy | 3 (0.3) | 506 (9.1) | 1 (0.2) | ~ ~ | 3 (0.3) | 534 (6.0) |
| Kuwait s | 0 (0.1) | ~ ~ | 10 (0.6) | 383 (7.8) | 29 (0.8) | 397 (4.3) |
| Latvia r | 13 (1.0) | 531 (4.9) | 0 (0.1) | ~ ~ | 17 (1.0) | 544 (4.5) |
| Lithuania r | 11 (0.7) | 529 (5.3) | 1 (0.2) | ~ ~ | 10 (0.6) | 544 (5.8) |
| Macedonia, Rep. of s | 11 (1.0) | 446 (8.4) | 8 (1.2) | 399 (13.6) | 7 (1.5) | 493 (9.5) |
| Moldova, Rep. of | 21 (1.7) | 485 (6.6) | 1 (0.2) | ~ ~ | 15 (1.5) | 491 (6.0) |
| Morocco | -- | -- | -- | -- | -- | -- |
| Netherlands s | 3 (0.6) | 547 (6.9) | 0 (0.1) | ~ ~ | 5 (0.5) | 554 (6.4) |
| New Zealand r | 6 (0.6) | 503 (8.6) | 1 (0.2) | ~ ~ | 7 (0.6) | 505 (14.9) |
| Norway r | 4 (0.5) | 467 (10.3) | 1 (0.2) | ~ ~ | 4 (0.5) | 494 (9.7) |
| Romania r | 2 (0.3) | ~ ~ | 8 (0.7) | 486 (12.8) | 1 (0.6) | ~ ~ |
| Russian Federation r | 6 (0.8) | 514 (9.2) | 1 (0.3) | ~ ~ | 9 (0.7) | 531 (7.5) |
| Scotland s | 8 (0.8) | 506 (8.4) | 0 (0.1) | ~ ~ | 6 (0.8) | 508 (7.3) |
| Singapore | 4 (0.3) | 457 (8.3) | 1 (0.1) | ~ ~ | 7 (0.4) | 506 (8.6) |
| Slovak Republic | 5 (0.9) | 475 (14.9) | 1 (0.2) | ~ ~ | 8 (0.6) | 501 (7.0) |
| Slovenia | 3 (0.4) | 482 (8.9) | 1 (0.2) | ~ ~ | 8 (0.6) | 496 (6.2) |
| Sweden r | 4 (0.4) | 558 (7.1) | 0 (0.1) | ~ ~ | 3 (0.3) | 561 (9.6) |
| Turkey r | 10 (1.0) | 437 (6.0) | 5 (0.5) | 409 (7.8) | 15 (0.9) | 441 (4.8) |
| United States | -- | -- | -- | -- | -- | -- |
| International Avg. | 8 (0.2) | 487 (1.9) | 2 (0.1) | ~ ~ | 8 (0.1) | 500 (1.7) |

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

Exhibit 4.14: Mothers' Occupation***ISC** 4th Grade
PIRLS 2001

| Countries | Professional | | Small Business Owner | | Clerical | | Skilled | |
|-------------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | x x | x x | x x | x x | x x | x x | x x | x x |
| Belize s | 9 (1.2) | 399 (11.7) | 9 (1.1) | 357 (13.4) | 15 (1.9) | 374 (11.3) | 3 (0.4) | 323 (22.0) |
| Bulgaria | 27 (1.2) | 592 (3.9) | 9 (0.7) | 559 (5.9) | 19 (1.0) | 563 (4.6) | 10 (0.7) | 543 (5.9) |
| Canada (O,Q) r | 35 (1.1) | 571 (2.6) | 7 (0.4) | 549 (5.2) | 34 (0.7) | 549 (2.5) | 7 (0.6) | 529 (5.7) |
| Colombia s | 10 (1.5) | 464 (16.7) | 8 (0.7) | 449 (10.9) | 16 (1.1) | 451 (6.1) | 7 (0.8) | 442 (9.1) |
| Cyprus s | 15 (1.1) | 533 (5.6) | 9 (0.6) | 503 (6.4) | 36 (1.4) | 496 (4.6) | 4 (0.5) | 458 (12.6) |
| Czech Republic r | 26 (1.4) | 565 (3.7) | 5 (0.6) | 551 (7.0) | 34 (1.1) | 542 (3.0) | 9 (0.9) | 519 (5.6) |
| England s | 36 (1.7) | 598 (3.9) | 4 (0.5) | 575 (12.3) | 34 (1.3) | 570 (4.2) | 4 (0.6) | 545 (15.3) |
| France r | 25 (1.3) | 563 (3.2) | 5 (0.6) | 536 (6.9) | 31 (1.0) | 529 (2.7) | 7 (0.6) | 507 (5.3) |
| Germany r | 10 (0.7) | 580 (3.4) | 5 (0.4) | 543 (5.4) | 53 (0.9) | 552 (2.0) | 6 (0.4) | 529 (4.9) |
| Greece r | 18 (1.5) | 569 (4.2) | 10 (1.0) | 531 (6.9) | 25 (1.4) | 539 (6.6) | 12 (1.4) | 499 (9.6) |
| Hong Kong, SAR r | 11 (0.9) | 536 (4.1) | 5 (0.4) | 539 (6.6) | 28 (0.9) | 534 (2.9) | 4 (0.4) | 536 (6.9) |
| Hungary | 22 (1.2) | 579 (3.9) | 6 (0.4) | 558 (4.2) | 34 (1.0) | 552 (2.8) | 8 (0.6) | 528 (5.1) |
| Iceland r | 34 (0.9) | 542 (2.5) | 7 (0.5) | 501 (6.7) | 32 (0.9) | 510 (2.1) | 6 (0.5) | 511 (5.9) |
| Iran, Islamic Rep. of s | 4 (0.4) | 490 (8.7) | 2 (0.2) | ~ ~ | 3 (0.4) | 486 (10.2) | 4 (0.8) | 387 (16.4) |
| Israel | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy r | 16 (0.9) | 567 (4.2) | 8 (0.6) | 549 (6.3) | 28 (1.2) | 562 (2.5) | 11 (0.8) | 534 (4.5) |
| Kuwait s | 17 (1.3) | 424 (6.2) | 1 (0.1) | ~ ~ | 8 (0.6) | 401 (9.3) | 0 (0.1) | ~ ~ |
| Latvia | 24 (1.2) | 566 (3.0) | 4 (0.5) | 546 (6.5) | 29 (1.1) | 553 (3.3) | 6 (0.5) | 537 (5.8) |
| Lithuania | 21 (1.4) | 564 (4.2) | 4 (0.4) | 551 (5.7) | 36 (0.9) | 552 (3.4) | 10 (0.8) | 533 (6.4) |
| Macedonia, Rep. of s | 14 (1.2) | 524 (5.7) | 3 (0.5) | 487 (12.5) | 23 (1.6) | 502 (5.0) | 11 (1.1) | 472 (9.4) |
| Moldova, Rep. of | 21 (1.4) | 524 (6.3) | 3 (0.3) | 519 (9.1) | 18 (1.0) | 508 (5.0) | 14 (1.0) | 467 (6.4) |
| Morocco | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands s | 20 (1.1) | 583 (3.3) | 6 (0.6) | 554 (5.4) | 50 (1.3) | 565 (3.1) | 4 (0.5) | 531 (8.1) |
| New Zealand r | 35 (1.5) | 568 (4.2) | 10 (0.9) | 552 (7.2) | 28 (1.3) | 535 (5.3) | 6 (0.7) | 527 (8.9) |
| Norway | 41 (1.5) | 525 (3.6) | 4 (0.4) | 503 (9.0) | 28 (1.1) | 497 (4.1) | 9 (0.8) | 483 (6.0) |
| Romania r | 22 (1.6) | 530 (7.6) | 4 (0.5) | 540 (7.1) | 23 (1.2) | 528 (5.4) | 31 (1.9) | 498 (5.7) |
| Russian Federation | 29 (1.1) | 541 (5.5) | 2 (0.3) | ~ ~ | 35 (1.5) | 530 (4.3) | 11 (1.0) | 516 (7.3) |
| Scotland s | 32 (1.3) | 573 (4.6) | 4 (0.5) | 561 (9.9) | 36 (1.2) | 539 (5.0) | 6 (0.7) | 510 (12.3) |
| Singapore r | 23 (1.2) | 584 (4.5) | 7 (0.3) | 539 (5.5) | 30 (0.7) | 541 (4.5) | 9 (0.6) | 501 (7.6) |
| Slovak Republic | 24 (1.1) | 547 (4.1) | 6 (0.4) | 522 (6.4) | 33 (1.1) | 530 (2.6) | 17 (1.1) | 507 (3.9) |
| Slovenia | 27 (1.2) | 533 (2.9) | 5 (0.4) | 513 (6.2) | 41 (1.0) | 502 (2.5) | 9 (0.8) | 488 (5.3) |
| Sweden | 41 (1.5) | 580 (2.6) | 6 (0.4) | 578 (5.5) | 38 (1.1) | 559 (2.1) | 7 (0.8) | 542 (5.0) |
| Turkey r | 4 (0.6) | 530 (11.5) | 3 (0.5) | 438 (13.2) | 5 (0.6) | 496 (8.3) | 3 (0.4) | 449 (11.0) |
| United States | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | 22 (0.2) | 543 (1.1) | 5 (0.1) | 525 (1.6) | 28 (0.2) | 521 (0.9) | 8 (0.1) | 498 (1.8) |

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

*Based on parents' responses to the following: What kind of work does the child's mother/stepmother/female guardian do for their main job? a) Has never worked outside the home for pay; b) Small business owner; c) Clerk; d) Service or sales worker; e) Skilled agricultural or fishery worker; f) Craft or trade worker; g) Plant or machine operator; h) General laborer; i) Corporate

manager or senior official; j) Professional; k) Technician or associate professional; l) not applicable. Some categories were combined so that Professional includes options i through k, Clerical includes options c and d, and Skilled includes options e through g.

() 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 4.14: Mothers' Occupation* (Continued)**ISC****4th Grade**
PIRLS 2001

| Countries | General Laborer | | Never Worked Outside Home for Pay | | Not Applicable | |
|-------------------------|---------------------|---------------------|-----------------------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | x x | x x | x x | x x | x x | x x |
| Belize s | 15 (1.6) | 310 (9.7) | 35 (2.4) | 306 (7.1) | 14 (1.4) | 301 (7.8) |
| Bulgaria | 14 (1.6) | 509 (10.4) | 7 (0.8) | 499 (11.0) | 15 (0.9) | 553 (5.1) |
| Canada (O,Q) r | 5 (0.5) | 533 (5.9) | 2 (0.2) | ~ ~ | 10 (0.5) | 533 (4.2) |
| Colombia s | 15 (1.6) | 414 (7.5) | 34 (2.0) | 411 (5.3) | 10 (1.5) | 412 (7.4) |
| Cyprus s | 7 (0.8) | 471 (7.4) | 6 (0.7) | 481 (9.6) | 23 (1.1) | 486 (5.0) |
| Czech Republic r | 10 (0.9) | 519 (8.8) | 1 (0.3) | ~ ~ | 14 (0.9) | 531 (4.6) |
| England s | 6 (0.7) | 552 (9.9) | 4 (0.5) | 515 (13.5) | 13 (0.8) | 556 (8.4) |
| France r | 9 (0.7) | 502 (6.4) | 3 (0.4) | 506 (10.2) | 20 (0.9) | 515 (3.8) |
| Germany r | 6 (0.5) | 518 (4.3) | 3 (0.4) | 507 (9.1) | 17 (0.7) | 536 (3.4) |
| Greece r | 9 (0.9) | 506 (6.5) | 10 (1.0) | 515 (7.5) | 16 (1.0) | 518 (5.6) |
| Hong Kong, SAR r | 9 (0.5) | 529 (4.9) | 24 (1.0) | 527 (3.9) | 20 (1.0) | 537 (4.2) |
| Hungary | 13 (0.8) | 509 (4.0) | 1 (0.2) | ~ ~ | 17 (1.0) | 537 (3.4) |
| Iceland r | 10 (0.6) | 489 (5.1) | 1 (0.1) | ~ ~ | 10 (0.5) | 497 (5.0) |
| Iran, Islamic Rep. of s | 7 (1.5) | 367 (16.8) | 45 (2.8) | 413 (6.8) | 35 (2.1) | 418 (5.2) |
| Israel | x x | x x | x x | x x | x x | x x |
| Italy r | 8 (0.5) | 522 (6.2) | 18 (0.9) | 527 (4.6) | 11 (0.7) | 539 (5.2) |
| Kuwait s | 0 (0.1) | ~ ~ | 54 (1.9) | 394 (6.0) | 20 (0.9) | 409 (4.3) |
| Latvia | 16 (0.9) | 529 (3.7) | 1 (0.4) | ~ ~ | 19 (0.9) | 537 (4.5) |
| Lithuania | 15 (0.9) | 527 (5.0) | 1 (0.2) | ~ ~ | 12 (0.9) | 538 (4.7) |
| Macedonia, Rep. of s | 8 (0.9) | 451 (9.3) | 31 (2.0) | 417 (7.1) | 11 (1.9) | 458 (10.8) |
| Moldova, Rep. of | 23 (1.7) | 478 (6.8) | 2 (0.4) | ~ ~ | 18 (1.5) | 485 (4.8) |
| Morocco | -- | -- | -- | -- | -- | -- |
| Netherlands s | 9 (0.7) | 555 (4.8) | 2 (0.4) | ~ ~ | 9 (0.7) | 559 (5.6) |
| New Zealand r | 7 (0.8) | 519 (9.0) | 4 (0.6) | 513 (19.1) | 10 (0.8) | 519 (8.0) |
| Norway | 10 (0.8) | 478 (5.6) | 1 (0.3) | ~ ~ | 6 (0.5) | 489 (8.5) |
| Romania r | 1 (0.3) | ~ ~ | 19 (1.8) | 516 (10.5) | 1 (0.5) | ~ ~ |
| Russian Federation | 11 (1.0) | 517 (7.4) | 3 (0.4) | 492 (12.8) | 9 (0.9) | 522 (7.5) |
| Scotland s | 8 (0.8) | 504 (8.0) | 3 (0.4) | 505 (15.9) | 11 (0.8) | 528 (7.2) |
| Singapore r | 3 (0.3) | 472 (10.4) | 13 (0.6) | 504 (6.5) | 15 (0.6) | 528 (6.5) |
| Slovak Republic | 7 (0.9) | 493 (11.3) | 2 (0.4) | ~ ~ | 12 (0.7) | 502 (5.1) |
| Slovenia | 5 (0.5) | 481 (8.6) | 2 (0.3) | ~ ~ | 11 (0.8) | 494 (5.0) |
| Sweden | 5 (0.4) | 527 (5.7) | 1 (0.2) | ~ ~ | 3 (0.3) | 555 (8.3) |
| Turkey r | 3 (0.5) | 453 (8.6) | 51 (2.0) | 452 (4.3) | 32 (1.8) | 449 (4.0) |
| United States | -- | -- | -- | -- | -- | -- |
| International Avg. | 9 (0.2) | 491 (2.2) | 12 (0.2) | 474 (2.1) | 14 (0.2) | 501 (1.8) |

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

achievement varied across the occupational categories, with the highest among students with parents in professional occupations and the lowest in the skilled category for fathers and in the never worked outside the home for pay category for mothers.

How Often Do Parents Read?

To examine the association between parents' reading and students' reading achievement, PIRLS asked parents how much time they spent reading for themselves at home, including books, magazines, newspapers, and materials for work. Exhibit 4.15 summarizes their responses, together with the average reading achievement of the students. On average, 17 percent of students had a parent that reported reading for more than 10 hours a week, 24 percent had a parent reporting 6-10 hours a week, 41 percent had a parent reporting 1-5 hours a week, and 19 percent less than one hour a week. Reading achievement was highest among students whose parents read for 6-10 hours (520 score points) or for more than 10 hours per week (524 score points), lower among those whose parents read for 1-5 hours (505 points), and lowest among those whose parents read for less than one hour per week (478 points).

Almost half the students (45%) had parents reporting reading for enjoyment every day or almost every day, about one-third (34%) once or twice a week, 13 percent once or twice a week, and just 8 percent never or almost never (Exhibit 4.16). Students' average reading achievement was associated with parents' reports of reading for enjoyment, with the highest achievement (516 score points) among students of parents that read most frequently and the lowest (484 score points) among students whose parents never or almost never read for enjoyment.

To summarize parents' attitudes towards reading, PIRLS constructed an Index of Parents' Attitudes Toward Reading based on parents' agreement with five statements about reading:

- I read only if I have to (reverse-coded).
- I like talking about books with other people.

- I like to spend my spare time reading.
- I read only if I need information (reverse-coded).
- Reading is an important activity in my home.

Parents were asked if they agree a lot, agree a little, disagree a little, or disagree a lot with each of the statements. To construct the index, parents' responses were assigned a numeric code that was averaged across the five statements, and then students were assigned to one of three categories, high, medium, or low, on the basis of their parents' average response. Students in the high category had parents that reported agreeing a little or a lot with the five statements, on average, whereas those in the low category, on average, disagreed a lot. Students in the medium category had parents reporting in between these extremes.

Exhibit 4.17 presents the percentage of students at each level of the index for each country, together with the average reading achievement for those students. Standard errors also are shown. Countries are ordered by the percentage of students at the high level of the index, which is also displayed graphically for each country at the right hand side of the exhibit. The international average across all countries is shown at the bottom of each column. The exhibit also describes in detail how the index was computed.

Parents' responses generally indicated very favorable attitudes toward reading, with more than half the students (53%), on average, at the high level of the index and 42 percent at the medium level. Just 5 percent were at the low level. Countries with the highest percentages of students with parents holding positive attitudes toward reading included Hungary, Norway, and Sweden, where more than 70 percent of students were at the high level of the index. Countries where fewer parents expressed positive attitudes included Turkey, Hong Kong, and Moldova, each of which had less than 30 percent of students at the high level. On average, internationally, students at the high level of the index had higher average reading achievement (524 points) than students at the medium (492 points) or low level (482 points).

Exhibit 4.15: Parents Read at Home

ISC
4th Grade
PIRLS 2001

| Countries | | More than 10 Hours a Week | | 6-10 Hours a Week | | 1-5 Hours a Week | | Less than One Hour a Week | |
|-----------------------|---|------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------------|------------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 7 (0.8) | 467 (9.4) | 14 (0.7) | 452 (9.1) | 42 (1.2) | 436 (6.1) | 37 (1.5) | 402 (6.8) |
| Belize | s | 12 (1.3) | 370 (14.0) | 13 (1.1) | 351 (8.0) | 35 (1.7) | 341 (7.4) | 40 (2.5) | 303 (6.2) |
| Bulgaria | | 27 (1.1) | 573 (4.9) | 21 (0.9) | 573 (3.4) | 30 (0.9) | 554 (4.1) | 22 (1.6) | 507 (8.2) |
| Canada (O,Q) | r | 21 (0.6) | 561 (3.3) | 27 (0.8) | 557 (3.0) | 42 (0.8) | 547 (2.5) | 10 (0.6) | 524 (3.8) |
| Colombia | | 6 (0.4) | 442 (8.9) | 10 (0.8) | 430 (11.7) | 40 (1.4) | 436 (5.4) | 44 (1.8) | 411 (4.3) |
| Cyprus | s | 12 (0.7) | 516 (7.7) | 21 (0.9) | 506 (5.0) | 46 (1.1) | 490 (4.0) | 21 (1.1) | 469 (4.6) |
| Czech Republic | | 20 (0.9) | 552 (3.9) | 29 (0.9) | 546 (3.5) | 44 (1.0) | 534 (2.9) | 7 (0.5) | 519 (6.2) |
| England | s | 22 (1.3) | 591 (5.7) | 30 (1.2) | 581 (4.3) | 39 (1.3) | 563 (4.6) | 9 (0.8) | 529 (8.3) |
| France | | 11 (0.7) | 547 (4.8) | 20 (0.9) | 544 (3.9) | 50 (1.1) | 529 (2.6) | 19 (0.8) | 495 (3.3) |
| Germany | | 19 (0.7) | 558 (3.0) | 31 (0.8) | 551 (2.3) | 41 (0.8) | 536 (2.7) | 9 (0.6) | 509 (3.6) |
| Greece | | 15 (1.0) | 556 (4.6) | 19 (1.0) | 547 (4.7) | 45 (1.1) | 519 (4.5) | 21 (1.3) | 500 (5.3) |
| Hong Kong, SAR | | 17 (0.7) | 541 (3.1) | 23 (0.7) | 535 (3.2) | 42 (0.7) | 529 (3.4) | 18 (0.8) | 513 (4.3) |
| Hungary | | 18 (0.8) | 565 (3.1) | 27 (0.7) | 559 (3.1) | 43 (0.9) | 538 (2.7) | 11 (0.7) | 503 (4.1) |
| Iceland | r | 20 (0.6) | 524 (3.7) | 34 (1.0) | 524 (2.3) | 41 (0.8) | 510 (2.1) | 5 (0.4) | 489 (6.1) |
| Iran, Islamic Rep. of | | 12 (0.8) | 435 (7.3) | 12 (0.7) | 420 (10.3) | 34 (1.2) | 428 (4.9) | 42 (1.6) | 403 (4.5) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 12 (0.6) | 563 (4.3) | 20 (0.7) | 558 (3.5) | 49 (0.8) | 539 (2.6) | 19 (0.8) | 520 (3.6) |
| Kuwait | r | 15 (0.5) | 412 (5.3) | 16 (0.5) | 410 (4.7) | 42 (0.9) | 403 (5.0) | 27 (0.9) | 386 (5.8) |
| Latvia | | 18 (0.8) | 557 (3.8) | 27 (1.0) | 554 (3.3) | 43 (1.0) | 540 (3.2) | 12 (0.7) | 530 (5.1) |
| Lithuania | | 15 (0.8) | 546 (4.8) | 23 (1.0) | 558 (4.1) | 48 (1.1) | 543 (2.6) | 14 (0.9) | 524 (4.1) |
| Macedonia, Rep. of | r | 20 (1.0) | 474 (6.7) | 25 (0.9) | 461 (6.4) | 38 (1.1) | 443 (5.2) | 17 (1.5) | 419 (8.6) |
| Moldova, Rep. of | | 14 (0.7) | 504 (6.0) | 18 (1.2) | 516 (5.5) | 39 (1.2) | 496 (4.4) | 29 (1.4) | 469 (5.1) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 18 (0.9) | 573 (4.6) | 32 (0.9) | 569 (3.0) | 41 (1.2) | 559 (2.7) | 10 (0.7) | 541 (5.8) |
| New Zealand | r | 23 (1.1) | 545 (6.6) | 29 (1.0) | 557 (5.4) | 37 (1.0) | 533 (4.0) | 10 (0.7) | 480 (6.5) |
| Norway | | 23 (1.1) | 519 (5.5) | 37 (1.1) | 509 (3.7) | 35 (1.1) | 491 (4.1) | 5 (0.5) | 451 (8.2) |
| Romania | | 12 (0.8) | 535 (6.6) | 14 (1.1) | 538 (6.0) | 42 (1.1) | 517 (4.5) | 32 (1.6) | 490 (7.1) |
| Russian Federation | | 16 (0.7) | 532 (4.5) | 19 (0.8) | 533 (6.8) | 40 (1.0) | 529 (4.5) | 25 (1.4) | 522 (5.6) |
| Scotland | s | 27 (1.3) | 552 (5.6) | 33 (1.4) | 555 (4.0) | 33 (1.1) | 531 (5.6) | 6 (0.6) | 501 (10.7) |
| Singapore | | 18 (0.6) | 559 (4.6) | 28 (0.7) | 546 (4.9) | 37 (0.8) | 525 (5.5) | 16 (0.8) | 482 (6.8) |
| Slovak Republic | | 18 (0.8) | 533 (4.5) | 26 (0.8) | 531 (3.5) | 46 (1.0) | 516 (2.9) | 10 (0.7) | 481 (6.5) |
| Slovenia | | 10 (0.6) | 529 (4.2) | 26 (1.0) | 517 (3.4) | 53 (1.1) | 496 (2.3) | 11 (0.6) | 477 (4.9) |
| Sweden | | 23 (0.8) | 574 (2.9) | 35 (0.9) | 568 (2.5) | 36 (0.8) | 557 (2.5) | 6 (0.5) | 528 (5.5) |
| Turkey | | 9 (0.5) | 457 (7.1) | 18 (0.9) | 468 (5.7) | 37 (0.8) | 456 (3.9) | 36 (1.6) | 433 (3.9) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 17 (0.2) | 524 (1.0) | 24 (0.2) | 520 (1.0) | 41 (0.2) | 505 (0.7) | 19 (0.2) | 478 (1.1) |

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

Background data provided by parents.

() 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 4.16: Parents Read for Enjoyment
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 | s | 36 (1.3) | 440 (7.5) | 36 (1.2) | 433 (6.4) | 14 (0.9) | 432 (9.1) | 14 (0.9) | 420 (10.5) |
| Belize | s | 28 (1.4) | 343 (8.2) | 39 (1.3) | 343 (6.4) | 17 (0.8) | 328 (8.7) | 16 (1.5) | 289 (7.3) |
| Bulgaria | | 53 (1.6) | 567 (3.5) | 28 (1.2) | 554 (4.9) | 11 (0.6) | 534 (8.0) | 9 (1.5) | 506 (10.8) |
| Canada (O,Q) | r | 51 (1.0) | 558 (2.5) | 32 (0.8) | 547 (2.9) | 12 (0.6) | 537 (4.1) | 4 (0.3) | 532 (6.3) |
| Colombia | r | 24 (1.0) | 433 (7.5) | 38 (1.1) | 430 (5.9) | 19 (1.2) | 424 (6.7) | 19 (1.3) | 414 (5.1) |
| Cyprus | s | 35 (1.3) | 503 (4.8) | 41 (1.3) | 493 (4.2) | 16 (0.9) | 482 (6.0) | 8 (0.5) | 482 (7.0) |
| Czech Republic | r | 51 (1.1) | 541 (3.0) | 38 (1.1) | 543 (3.2) | 9 (0.6) | 537 (5.0) | 1 (0.3) | ~ ~ |
| England | s | 56 (1.5) | 582 (3.8) | 31 (1.2) | 568 (4.5) | 9 (0.8) | 558 (7.8) | 4 (0.5) | 533 (14.9) |
| France | | 51 (1.0) | 537 (3.0) | 34 (0.9) | 523 (3.3) | 10 (0.7) | 519 (3.7) | 5 (0.4) | 499 (7.6) |
| Germany | r | 51 (0.9) | 553 (2.0) | 32 (0.7) | 538 (2.3) | 12 (0.5) | 534 (3.5) | 5 (0.4) | 522 (5.1) |
| Greece | | 41 (1.3) | 536 (3.9) | 38 (1.2) | 522 (4.0) | 12 (0.9) | 528 (7.4) | 9 (0.8) | 499 (7.3) |
| Hong Kong, SAR | | 31 (1.1) | 538 (3.0) | 29 (0.7) | 529 (3.5) | 19 (0.7) | 528 (4.0) | 21 (0.8) | 524 (4.1) |
| Hungary | | 51 (0.9) | 553 (2.5) | 36 (0.8) | 543 (2.7) | 9 (0.5) | 530 (4.7) | 4 (0.4) | 513 (6.1) |
| Iceland | r | 62 (0.8) | 519 (1.9) | 25 (0.8) | 516 (3.2) | 9 (0.5) | 512 (6.0) | 3 (0.3) | 509 (7.8) |
| Iran, Islamic Rep. of | | 22 (1.0) | 417 (6.6) | 36 (1.4) | 423 (4.8) | 21 (1.0) | 420 (5.8) | 22 (1.6) | 398 (6.3) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 47 (0.9) | 555 (2.5) | 36 (0.8) | 540 (2.9) | 10 (0.6) | 530 (4.8) | 7 (0.5) | 526 (5.3) |
| Kuwait | r | 40 (0.6) | 405 (5.1) | 39 (0.7) | 402 (4.6) | 14 (0.6) | 395 (5.9) | 6 (0.4) | 391 (8.3) |
| Latvia | | 53 (1.6) | 550 (2.5) | 35 (1.1) | 545 (3.1) | 9 (0.7) | 544 (5.2) | 3 (0.4) | 534 (13.8) |
| Lithuania | | 52 (1.0) | 546 (3.3) | 37 (1.0) | 545 (3.1) | 8 (0.6) | 547 (5.5) | 2 (0.3) | ~ ~ |
| Macedonia, Rep. of | r | 41 (1.3) | 471 (5.9) | 41 (1.0) | 441 (5.0) | 13 (0.9) | 426 (8.4) | 5 (0.8) | 439 (14.4) |
| Moldova, Rep. of | | 35 (1.6) | 505 (5.2) | 40 (1.2) | 492 (4.2) | 16 (0.8) | 481 (5.1) | 9 (0.8) | 474 (7.4) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 60 (1.3) | 567 (2.5) | 28 (1.0) | 560 (3.4) | 7 (0.6) | 552 (6.0) | 5 (0.6) | 550 (5.7) |
| New Zealand | r | 56 (1.2) | 547 (4.0) | 29 (1.1) | 536 (4.4) | 11 (0.8) | 516 (7.3) | 4 (0.4) | 502 (12.5) |
| Norway | | 59 (1.2) | 507 (3.6) | 28 (1.1) | 498 (4.5) | 10 (0.5) | 503 (7.4) | 4 (0.4) | 488 (10.1) |
| Romania | | 16 (1.2) | 532 (6.4) | 33 (1.4) | 526 (4.8) | 24 (1.1) | 518 (6.6) | 27 (1.7) | 492 (7.6) |
| Russian Federation | | 49 (1.2) | 532 (3.9) | 34 (1.1) | 527 (6.5) | 13 (0.8) | 526 (6.2) | 3 (0.3) | 507 (8.5) |
| Scotland | s | 62 (1.3) | 552 (4.3) | 26 (1.2) | 532 (5.7) | 7 (0.6) | 525 (9.6) | 5 (0.6) | 526 (13.2) |
| Singapore | | 36 (0.8) | 551 (4.3) | 36 (0.6) | 530 (5.3) | 19 (0.6) | 518 (5.8) | 9 (0.4) | 496 (8.4) |
| Slovak Republic | | 49 (1.1) | 528 (3.0) | 40 (1.0) | 521 (3.3) | 8 (0.5) | 511 (5.3) | 3 (0.4) | 487 (13.0) |
| Slovenia | | 41 (1.0) | 509 (2.6) | 42 (0.9) | 504 (2.8) | 13 (0.6) | 498 (4.0) | 4 (0.4) | 479 (10.0) |
| Sweden | | 68 (0.9) | 568 (2.1) | 22 (0.7) | 556 (3.2) | 7 (0.4) | 554 (5.2) | 3 (0.3) | 540 (6.0) |
| Turkey | r | 21 (1.2) | 463 (6.3) | 34 (1.1) | 455 (5.0) | 20 (0.9) | 449 (4.7) | 25 (1.5) | 438 (4.7) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 45 (0.2) | 516 (0.8) | 34 (0.2) | 507 (0.8) | 13 (0.1) | 500 (1.1) | 8 (0.1) | 484 (1.7) |

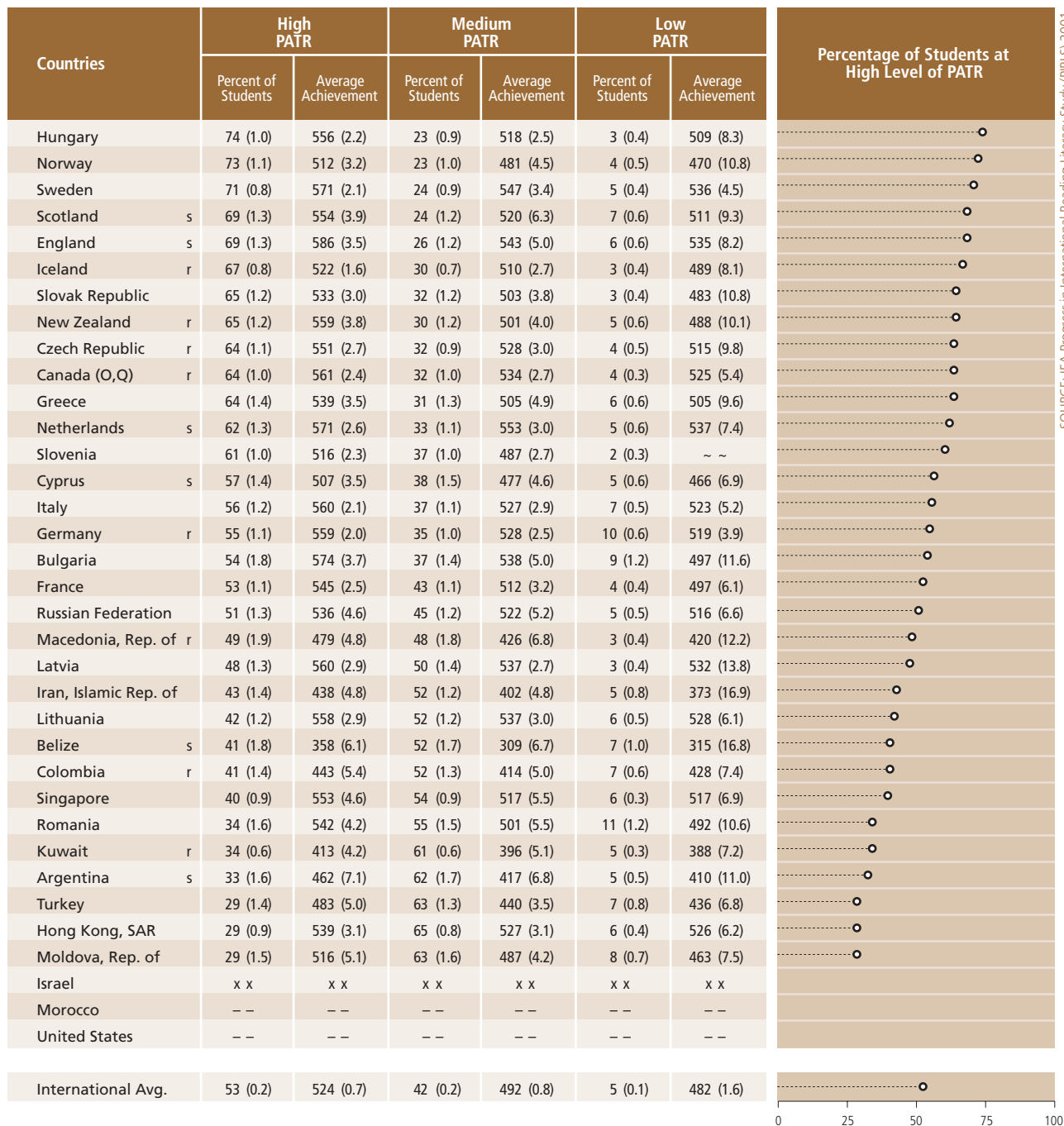
SOURCE: IEA Progress in International Reading Study (PIRLS) 2001.

Background data provided by parents.

() 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 4.17: Index of Parents' Attitudes Toward Reading (PATR)ISC
4th Grade
PIRLS 2001

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

Index of Parents' Attitudes Toward Reading (PATR)

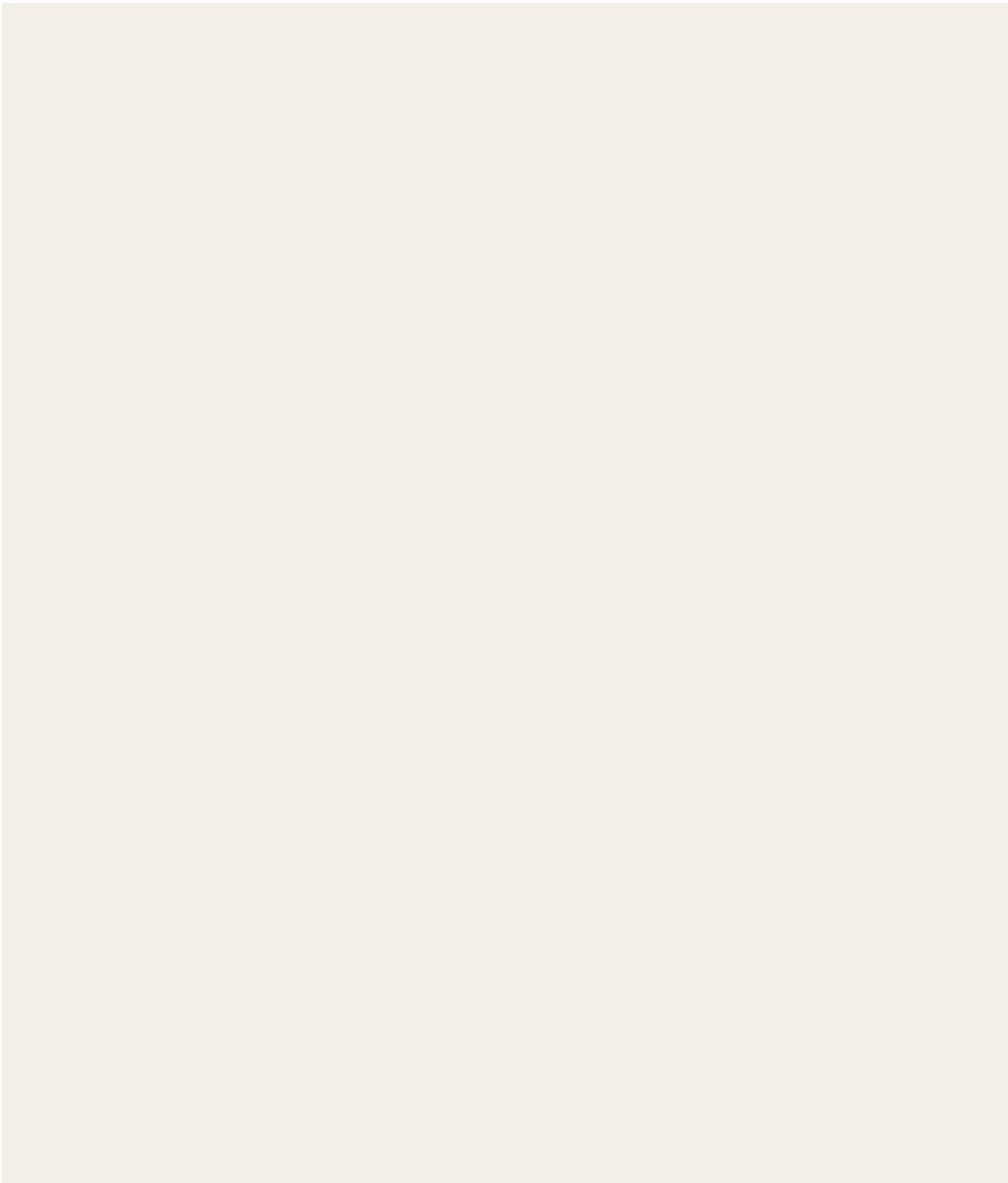
Based on parents' agreement with the following: I read only if I have to; I like talking about books with other people; I like to spend my spare time reading; I read only if I need information; and Reading is an important activity in my home. Average is computed across the 5 items based on a 4-point scale: Disagree

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





Chapter 5

School Curriculum and Organization for Teaching Reading

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

Average reading achievement was lowest among students not attending preschool.

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

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

For reporting purposes, the information provided by parents, teachers, and school principals is tied directly to the students tested. Sometimes, however, respondents did not complete the questionnaire assigned to them, so most countries had some percentage of students for whom no questionnaire information is available. The exhibits in this chapter have special notations on this point. For a country where responses are available for 70 to 84 percent of students, an "r" is included next to its data. Where responses are available for 50 to 69 percent of students, an "s" is included. Where responses are available for less than 50 percent, an "x" replaces the data.

For reporting purposes, the information provided by parents, teachers, and school principals is tied directly to the students tested. Sometimes, however, respondents did not complete the questionnaire assigned to them, so most countries had some percentage of students for whom no questionnaire information is available. The exhibits in this chapter have special notations on this point. For a country where responses are available for 70 to 84 percent of students, an "r" is included next to its data. Where responses are available for 50 to 69 percent of students, an "s" is included. Where responses are available for less than 50 percent, an "x" replaces the data.

How Well-Prepared Are Students to Learn to Read?

Countries adopt a variety of strategies for helping children make the transition from home to a school environment. Such preprimary education programs, known also as preschool, kindergarten, and early childhood education, can be up to three years, and are intended to prepare children for primary education.

1 For a description of educational systems and reading literacy curricula in the PIRLS countries, see Mullis, I.V.S., Martin, M.O., Kennedy, A.M., & Flaherty, C.L. (Eds.). (2002). *PIRLS 2001 Encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS)*. Chestnut Hill, MA: Boston College.

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

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

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

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



Exhibit 5.1: Number of Years Children Attended Preprimary Education (Preschool, Kindergarten, and Other Similar Programs)**ISC** 4th Grade
PIRLS 2001

| Countries | Did Not Attend | | Up to and Including 1 Year | | Greater than 1 Year up to and Including 2 Years | | More than 2 Years | |
|-----------------------|---------------------|---------------------|----------------------------|---------------------|---|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s 8 (1.7) | 391 (9.5) | 45 (2.2) | 415 (6.6) | 24 (1.8) | 429 (8.4) | 23 (1.7) | 467 (7.9) |
| Belize | s 46 (2.6) | 298 (5.4) | 27 (1.9) | 348 (7.8) | 20 (1.5) | 380 (8.8) | 7 (0.8) | 335 (15.4) |
| Bulgaria | 13 (1.3) | 538 (9.0) | 14 (1.1) | 541 (7.1) | 16 (0.8) | 557 (4.8) | 57 (1.7) | 559 (3.4) |
| Canada (O,Q) | r 6 (0.5) | 539 (5.3) | 26 (0.9) | 542 (2.8) | 46 (0.9) | 547 (2.8) | 21 (0.7) | 572 (3.2) |
| Colombia | 20 (1.5) | 408 (6.1) | 37 (2.2) | 417 (5.3) | 23 (1.2) | 428 (5.4) | 20 (1.7) | 452 (10.8) |
| Cyprus | s 4 (0.7) | 482 (9.8) | 20 (1.5) | 471 (4.6) | 36 (1.4) | 494 (3.5) | 40 (1.7) | 502 (4.6) |
| Czech Republic | 5 (0.5) | 534 (7.6) | 11 (0.7) | 535 (5.4) | 19 (0.9) | 540 (3.8) | 65 (1.2) | 541 (2.5) |
| England | s 12 (1.2) | 566 (9.9) | 26 (1.8) | 566 (4.7) | 45 (1.4) | 573 (4.5) | 18 (1.2) | 579 (6.1) |
| France | 1 (0.3) | ~ ~ | 2 (0.3) | ~ ~ | 9 (0.6) | 508 (5.0) | 88 (0.7) | 530 (2.5) |
| Germany | 4 (0.3) | 522 (7.7) | 6 (0.4) | 510 (6.0) | 21 (1.0) | 538 (2.9) | 68 (1.2) | 548 (1.9) |
| Greece | 5 (0.8) | 512 (14.1) | 25 (1.3) | 524 (4.9) | 50 (1.9) | 522 (4.1) | 21 (2.0) | 543 (5.5) |
| Hong Kong, SAR | 4 (0.6) | 537 (7.2) | 4 (0.6) | 517 (7.4) | 7 (0.6) | 524 (4.8) | 85 (1.5) | 530 (3.0) |
| Hungary | 0 (0.1) | ~ ~ | 4 (0.4) | 519 (8.1) | 10 (0.7) | 526 (4.9) | 86 (0.9) | 548 (2.4) |
| Iceland | -- | -- | -- | -- | -- | -- | -- | -- |
| Iran, Islamic Rep. of | 70 (2.1) | 398 (3.6) | 21 (1.6) | 450 (5.2) | 5 (0.4) | 452 (8.8) | 4 (0.5) | 460 (9.9) |
| Israel | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | 2 (0.3) | ~ ~ | 4 (0.5) | 536 (8.4) | 15 (0.8) | 525 (4.4) | 78 (1.0) | 547 (2.3) |
| Kuwait | -- | -- | -- | -- | -- | -- | -- | -- |
| Latvia | 23 (1.3) | 542 (4.4) | 50 (1.5) | 543 (2.6) | 9 (0.8) | 550 (4.4) | 18 (1.0) | 558 (5.6) |
| Lithuania | 41 (1.8) | 534 (3.3) | 12 (0.7) | 551 (5.1) | 11 (0.8) | 545 (5.5) | 37 (1.5) | 552 (3.3) |
| Macedonia, Rep. of | r 25 (2.1) | 433 (8.4) | 48 (2.1) | 446 (5.7) | 12 (0.7) | 458 (8.8) | 15 (1.6) | 485 (8.2) |
| Moldova, Rep. of | 15 (1.5) | 489 (8.0) | 13 (1.0) | 481 (7.9) | 15 (0.8) | 492 (6.7) | 57 (2.0) | 497 (4.0) |
| Morocco | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s 11 (1.1) | 551 (5.9) | 14 (1.0) | 558 (4.2) | 63 (1.4) | 565 (2.6) | 12 (0.9) | 573 (4.8) |
| New Zealand | r 7 (0.7) | 503 (8.6) | 9 (0.8) | 527 (7.1) | 42 (1.5) | 541 (4.8) | 41 (1.3) | 541 (4.3) |
| Norway | 14 (1.2) | 492 (5.5) | 9 (0.7) | 493 (7.1) | 18 (0.8) | 495 (4.5) | 59 (1.6) | 508 (3.8) |
| Romania | 8 (0.9) | 465 (10.6) | 10 (0.8) | 498 (7.1) | 23 (1.4) | 513 (6.9) | 59 (1.8) | 524 (4.8) |
| Russian Federation | 21 (1.3) | 524 (6.9) | 6 (0.4) | 533 (5.8) | 10 (0.5) | 525 (8.4) | 63 (1.5) | 530 (3.8) |
| Scotland | s 10 (1.2) | 541 (7.1) | 39 (2.0) | 545 (5.2) | 38 (1.4) | 538 (5.8) | 14 (0.9) | 548 (6.3) |
| Singapore | 1 (0.2) | ~ ~ | 2 (0.2) | ~ ~ | 41 (0.7) | 520 (5.7) | 55 (0.8) | 541 (4.6) |
| Slovak Republic | 7 (0.6) | 477 (6.9) | 19 (1.1) | 510 (4.2) | 18 (0.7) | 520 (4.2) | 56 (1.5) | 529 (2.9) |
| Slovenia | 1 (0.2) | ~ ~ | 72 (1.2) | 499 (2.3) | 24 (1.2) | 515 (3.4) | 3 (0.3) | 504 (9.4) |
| ^a Sweden | 5 (0.6) | 549 (5.9) | 44 (1.7) | 556 (2.4) | 13 (0.8) | 564 (5.1) | 38 (1.6) | 575 (2.4) |
| Turkey | 76 (1.8) | 442 (3.2) | 18 (1.3) | 475 (6.1) | 4 (0.5) | 474 (11.9) | 2 (0.4) | ~ ~ |
| United States | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | 16 (0.2) | 491 (1.8) | 21 (0.2) | 504 (1.1) | 23 (0.2) | 512 (1.1) | 40 (0.2) | 523 (1.2) |

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

Background data provided by parents.

^a For Sweden, includes time spent in non-academic preschool classes.

() 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 5.2: Age Students Began Primary School**ISC** 4th Grade
PIRLS 2001

| Countries | | 5 Years Old or Younger | | 6 Years Old | | 7 Years Old | | 8 Years Old or Older | |
|-----------------------|---|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 20 (1.0) | 436 (8.0) | 74 (1.0) | 430 (5.9) | 6 (0.6) | 383 (11.2) | 1 (0.3) | ~ ~ |
| Belize | s | 83 (1.3) | 328 (5.5) | 13 (0.9) | 346 (10.7) | 3 (0.6) | 303 (10.3) | 2 (0.3) | ~ ~ |
| Bulgaria | | 0 (0.1) | ~ ~ | 12 (0.7) | 547 (6.0) | 84 (0.8) | 556 (3.7) | 4 (0.5) | 516 (10.4) |
| Canada (O,Q) | r | 34 (0.8) | 542 (2.7) | 63 (0.8) | 555 (2.4) | 3 (0.3) | 542 (8.9) | 0 (0.1) | ~ ~ |
| Colombia | | 39 (1.4) | 427 (4.9) | 44 (1.4) | 431 (5.3) | 14 (0.9) | 411 (7.3) | 4 (0.6) | 402 (10.1) |
| Cyprus | s | 19 (1.2) | 480 (4.7) | 78 (1.1) | 496 (3.6) | 2 (0.4) | ~ ~ | 0 (0.2) | ~ ~ |
| Czech Republic | | 1 (0.2) | ~ ~ | 63 (0.8) | 542 (2.5) | 35 (0.9) | 538 (3.3) | 1 (0.2) | ~ ~ |
| England | s | 93 (0.6) | 572 (3.6) | 6 (0.5) | 559 (10.2) | 1 (0.3) | ~ ~ | 0 (0.1) | ~ ~ |
| France | | 14 (0.7) | 522 (5.3) | 82 (0.8) | 529 (2.4) | 4 (0.4) | 501 (9.3) | 0 (0.1) | ~ ~ |
| Germany | | 2 (0.2) | ~ ~ | 68 (0.7) | 546 (2.2) | 30 (0.8) | 537 (1.9) | 0 (0.1) | ~ ~ |
| Greece | | 4 (0.5) | 518 (9.6) | 76 (1.3) | 532 (3.8) | 19 (1.3) | 500 (6.2) | 1 (0.2) | ~ ~ |
| Hong Kong, SAR | | 7 (0.4) | 518 (5.5) | 74 (1.4) | 530 (3.0) | 13 (0.9) | 533 (4.3) | 5 (0.7) | 525 (8.9) |
| Hungary | | 0 (0.1) | ~ ~ | 35 (0.8) | 548 (2.3) | 63 (0.8) | 545 (2.6) | 2 (0.2) | ~ ~ |
| Iceland | r | 10 (0.6) | 519 (4.0) | 89 (0.6) | 517 (1.5) | 1 (0.2) | ~ ~ | 0 (0.0) | ~ ~ |
| Iran, Islamic Rep. of | | 1 (0.1) | ~ ~ | 40 (2.0) | 413 (5.5) | 57 (1.8) | 416 (4.6) | 2 (0.5) | ~ ~ |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 17 (0.9) | 531 (4.3) | 80 (0.9) | 545 (2.3) | 3 (0.3) | 528 (9.8) | 0 (0.1) | ~ ~ |
| Kuwait | | -- | -- | -- | -- | -- | -- | -- | -- |
| Latvia | | 0 (0.1) | ~ ~ | 21 (1.3) | 546 (4.4) | 74 (1.5) | 547 (2.7) | 5 (0.5) | 520 (7.0) |
| Lithuania | | 1 (0.2) | ~ ~ | 23 (1.1) | 546 (4.3) | 73 (1.1) | 545 (2.6) | 3 (0.4) | 497 (12.9) |
| Macedonia, Rep. of | r | 2 (0.3) | ~ ~ | 30 (1.2) | 461 (5.4) | 66 (1.3) | 445 (5.8) | 2 (0.5) | ~ ~ |
| Moldova, Rep. of | | 0 (0.1) | ~ ~ | 19 (1.3) | 501 (5.2) | 76 (1.3) | 492 (4.4) | 4 (0.4) | 470 (7.5) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 14 (0.9) | 567 (4.5) | 78 (1.1) | 565 (2.5) | 8 (0.6) | 544 (6.1) | 0 (0.1) | ~ ~ |
| New Zealand | r | 97 (0.4) | 537 (3.3) | 2 (0.4) | ~ ~ | 1 (0.2) | ~ ~ | 0 (0.1) | ~ ~ |
| Norway | | 20 (0.7) | 485 (3.5) | 78 (0.8) | 507 (3.2) | 3 (0.4) | 474 (13.3) | 0 (0.0) | ~ ~ |
| Romania | | 1 (0.2) | ~ ~ | 12 (0.8) | 517 (8.2) | 82 (0.9) | 514 (4.6) | 5 (0.4) | 492 (9.7) |
| Russian Federation | | 1 (0.2) | ~ ~ | 26 (1.8) | 531 (5.4) | 68 (1.6) | 528 (4.9) | 4 (0.4) | 517 (9.3) |
| Scotland | s | 98 (0.3) | 543 (3.9) | 2 (0.3) | ~ ~ | 0 (0.1) | ~ ~ | 0 (0.0) | ~ ~ |
| Singapore | | 2 (0.2) | ~ ~ | 39 (0.7) | 538 (5.1) | 58 (0.7) | 526 (5.1) | 1 (0.1) | ~ ~ |
| Slovak Republic | | 2 (0.3) | ~ ~ | 70 (1.0) | 521 (2.7) | 27 (1.0) | 516 (3.7) | 0 (0.1) | ~ ~ |
| Slovenia | | 0 (0.1) | ~ ~ | 18 (0.8) | 494 (3.7) | 80 (0.8) | 506 (2.2) | 2 (0.3) | ~ ~ |
| Sweden | | -- | -- | -- | -- | -- | -- | -- | -- |
| Turkey | | 2 (0.2) | ~ ~ | 27 (1.2) | 451 (4.7) | 64 (1.3) | 452 (4.0) | 7 (0.6) | 430 (6.6) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 19 (0.1) | 502 (2.9) | 45 (0.2) | 509 (1.1) | 34 (0.2) | 495 (2.1) | 2 (0.1) | ~ ~ |

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

Background data provided by parents.

() 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 5.3: Students in Schools Categorized by Principals' Estimate of the Percentage of Students Beginning School With Early Literacy Skills***ISC** 4th Grade
PIRLS 2001

| Countries | More than 75% Begin School with Skills | | 51-75% Begin School with Skills | | 25-50% Begin School with Skills | | Less than 25% Begin School with Skills | |
|-----------------------|---|------------------------|------------------------------------|------------------------|------------------------------------|------------------------|---|------------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 14 (3.2) | 422 (22.1) | 7 (2.6) | 425 (25.9) | 22 (3.6) | 439 (12.0) | 57 (4.5) | 410 (7.3) |
| Belize | 7 (3.8) | 352 (25.1) | 1 (0.0) | ~ ~ | 3 (2.2) | 333 (17.6) | 90 (4.3) | 321 (4.9) |
| Bulgaria | 5 (1.7) | 574 (15.0) | 12 (2.7) | 569 (10.0) | 26 (3.3) | 569 (5.9) | 58 (3.3) | 536 (5.8) |
| Canada (O,Q) | 28 (3.4) | 547 (4.2) | 26 (3.6) | 549 (5.3) | 25 (3.1) | 544 (4.5) | 21 (2.2) | 532 (3.9) |
| Colombia | 26 (4.8) | 443 (12.6) | 9 (2.6) | 423 (15.2) | 15 (3.8) | 428 (11.1) | 49 (4.2) | 410 (7.1) |
| Cyprus r | 0 (0.0) | ~ ~ | 0 (0.0) | ~ ~ | 8 (3.5) | 509 (9.3) | 92 (3.5) | 492 (3.8) |
| Czech Republic | 0 (0.0) | ~ ~ | 1 (0.7) | ~ ~ | 8 (2.3) | 546 (9.6) | 92 (2.4) | 537 (2.3) |
| England r | 61 (5.3) | 566 (5.9) | 19 (4.5) | 543 (9.0) | 11 (3.2) | 533 (7.8) | 9 (3.0) | 548 (9.2) |
| France | 21 (3.5) | 541 (6.0) | 27 (3.8) | 520 (3.8) | 34 (5.1) | 525 (5.0) | 17 (3.3) | 514 (8.2) |
| Germany | 1 (0.7) | ~ ~ | 0 (0.0) | ~ ~ | 8 (1.8) | 544 (7.2) | 91 (1.9) | 538 (2.0) |
| Greece | 1 (1.0) | ~ ~ | 4 (2.5) | 567 (15.1) | 20 (3.4) | 533 (8.1) | 75 (4.3) | 518 (3.5) |
| Hong Kong, SAR | -- | -- | -- | -- | -- | -- | -- | -- |
| Hungary | 0 (0.0) | ~ ~ | 1 (1.0) | ~ ~ | 5 (1.7) | 560 (11.3) | 93 (2.1) | 543 (2.3) |
| Iceland r | 5 (0.2) | 536 (1.9) | 22 (0.4) | 517 (3.0) | 39 (0.4) | 511 (2.5) | 35 (0.4) | 508 (2.6) |
| Iran, Islamic Rep. of | 4 (1.5) | 388 (21.9) | 0 (0.3) | ~ ~ | 3 (1.6) | 464 (21.7) | 92 (2.1) | 414 (4.6) |
| Israel | 7 (2.2) | 471 (27.6) | 8 (2.3) | 523 (21.5) | 14 (2.9) | 516 (13.9) | 70 (4.0) | 508 (4.8) |
| Italy | 2 (1.0) | ~ ~ | 13 (2.3) | 541 (6.0) | 28 (3.8) | 545 (5.0) | 56 (4.2) | 538 (3.0) |
| Kuwait | 9 (3.1) | 445 (12.1) | 15 (2.9) | 355 (9.1) | 10 (2.2) | 381 (7.9) | 66 (4.3) | 407 (6.2) |
| Latvia | 10 (2.2) | 567 (5.3) | 31 (3.7) | 554 (4.7) | 32 (4.2) | 535 (4.4) | 27 (3.9) | 535 (3.9) |
| Lithuania | 7 (1.8) | 526 (11.1) | 11 (2.8) | 554 (8.9) | 28 (3.8) | 548 (5.2) | 54 (4.4) | 542 (3.8) |
| Macedonia, Rep. of | 5 (2.0) | 439 (19.1) | 15 (3.4) | 476 (12.4) | 35 (4.4) | 455 (9.5) | 45 (4.6) | 426 (8.0) |
| Moldova, Rep. of | 19 (3.7) | 516 (9.0) | 14 (2.8) | 487 (8.5) | 36 (4.2) | 486 (7.5) | 32 (4.2) | 486 (7.1) |
| Morocco | 22 (4.3) | 362 (16.8) | 17 (3.9) | 335 (24.8) | 17 (2.6) | 373 (37.6) | 44 (4.9) | 337 (11.0) |
| Netherlands | 2 (1.2) | ~ ~ | 6 (1.8) | 566 (5.9) | 17 (3.5) | 563 (4.5) | 76 (3.9) | 551 (3.2) |
| New Zealand | 5 (1.8) | 568 (14.8) | 8 (2.1) | 531 (18.8) | 22 (3.3) | 543 (9.0) | 65 (3.6) | 521 (4.3) |
| Norway | 0 (0.0) | ~ ~ | 7 (2.5) | 514 (14.3) | 38 (4.4) | 501 (5.7) | 56 (4.8) | 497 (4.0) |
| Romania | 6 (2.1) | 515 (13.4) | 9 (2.3) | 533 (14.8) | 20 (3.2) | 512 (10.0) | 65 (3.8) | 508 (6.2) |
| Russian Federation | 7 (1.8) | 563 (10.8) | 20 (2.9) | 542 (4.8) | 33 (3.6) | 532 (5.7) | 41 (3.8) | 514 (8.5) |
| Scotland | 2 (1.2) | ~ ~ | 6 (2.5) | 531 (26.5) | 10 (3.1) | 550 (7.7) | 82 (4.1) | 524 (4.1) |
| Singapore | 63 (3.5) | 534 (6.7) | 28 (3.5) | 526 (10.0) | 8 (2.0) | 480 (15.1) | 1 (0.8) | ~ ~ |
| Slovak Republic | 1 (1.0) | ~ ~ | 0 (0.0) | ~ ~ | 4 (1.8) | 545 (8.7) | 95 (2.1) | 518 (3.0) |
| Slovenia | 61 (4.3) | 501 (2.8) | 14 (3.2) | 509 (6.0) | 14 (3.0) | 504 (5.8) | 11 (2.5) | 489 (5.5) |
| Sweden | 12 (3.1) | 559 (5.1) | 34 (4.8) | 565 (3.4) | 36 (5.0) | 561 (4.1) | 18 (3.8) | 555 (8.0) |
| Turkey | 2 (1.3) | ~ ~ | 1 (0.7) | ~ ~ | 5 (2.1) | 494 (15.1) | 92 (2.5) | 447 (3.7) |
| United States | 47 (4.4) | 556 (6.1) | 23 (3.5) | 536 (9.1) | 14 (3.0) | 531 (11.1) | 16 (3.1) | 530 (9.7) |
| International Avg. | 14 (0.5) | 500 (2.4) | 12 (0.5) | 511 (2.2) | 19 (0.6) | 506 (2.0) | 55 (0.6) | 493 (2.4) |

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

*Based on principals' responses to questions about how many of the students in their schools can do the following when they begin the first year of formal schooling: recognize most of the letters of the alphabet; write letters of the alphabet; read some words; write some words; and read sentences (see Exhibit 5.4 for details of these items). Average is computed across the 5 items

based on a 4-point scale: Less than 25% = 1, 25-50% = 2, 51-75% = 3, and More than 75% = 4. More than 75% indicates an average response score of greater than 3.25 through 4. 51-75% indicates an average of greater than 2.5 through 3.25. 25-50% indicates an average of 1.75 through 2.5. Less than 25% indicates an average of 1 to less than 1.75.

() 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.

- Write letters of the alphabet
- Write some words.

To provide an overview, Exhibit 5.3 summarizes principals' responses averaged across the five literacy skills. In most countries, principals reported that less than half (and in many cases less than one-quarter) of the beginning students possessed these skills. Exceptions were England, Singapore, and Slovenia, where more than 60 percent of fourth-grade students were in schools where principals reported that most beginning students (more than 75%) possessed a range of early literacy skills, and the United States, where principals also reported nearly half the students (47%) in such schools. Countries where almost all students were in schools where principals reported low levels of early literacy skills included Belize, Cyprus, the Czech Republic, Germany, Hungary, Iran, the Slovak Republic, and Turkey.

Exhibit 5.4 provides further detail, showing the percentage of fourth-grade students in schools where the principal reported that most beginning students could do specific early literacy skills. Across all countries, 24 percent of students were in schools where most beginning students could recognize most of the alphabet, 19 percent where most could write letters of the alphabet, 17 percent where most could read some words, 14 percent where most could write some words, and 10 percent where most could read sentences. Work with the alphabet seemed to receive particular emphasis in England, Singapore, Slovenia, and the United States, since the majority of students in these countries were in schools where most students could recognize most of the alphabet and write letters of the alphabet.

The parents of the PIRLS fourth-grade students also were asked how well their child could do each of the same five activities when beginning primary school. Exhibit 5.5 presents their responses, averaged across all five activities. The parents' responses are not directly comparable to those of the principals, since parents were responding about individual children and principals about the children in their school as a whole, but nonetheless the results make for an interesting comparison. Although principals in many countries reported relatively low levels of mastery of early literacy activities by beginning students,

Exhibit 5.4: Students in Schools Where Principals Estimate That Most Students (More than 75%) Begin School with Specific Early Literacy Skill

ISC

4th Grade
PIRLS 2001

| Countries | Percentage of Students Attending Such Schools | | | | |
|-----------------------|---|-------------------------------|-----------------|------------------|----------------|
| | Recognize Most of the Alphabet | Write Letters of the Alphabet | Read Some Words | Write Some Words | Read Sentences |
| Argentina | 22 (3.6) | 12 (3.1) | 14 (3.2) | 14 (3.3) | 10 (2.9) |
| Belize | r 7 (3.9) | 3 (1.7) | 5 (3.7) | 6 (3.8) | 4 (3.6) |
| Bulgaria | 21 (3.1) | 11 (2.7) | 7 (1.7) | 3 (1.3) | 1 (0.0) |
| Canada (O,Q) | 51 (3.4) | 45 (3.7) | 32 (3.1) | 27 (3.2) | 6 (1.5) |
| Colombia | 30 (4.7) | 27 (4.8) | 26 (4.8) | 23 (4.3) | 14 (3.2) |
| Cyprus | r 1 (1.1) | r 3 (2.6) | r 0 (0.0) | r 2 (1.3) | r 0 (0.0) |
| Czech Republic | 2 (1.1) | 2 (1.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| England | r 58 (5.9) | r 55 (5.5) | r 64 (5.3) | r 44 (4.8) | r 29 (4.7) |
| France | 29 (4.0) | 40 (5.2) | 25 (3.9) | 24 (4.0) | 3 (1.6) |
| Germany | 1 (1.0) | 4 (1.7) | 1 (0.7) | 2 (1.3) | 0 (0.0) |
| Greece | 10 (2.7) | 6 (2.2) | 2 (1.1) | 2 (1.4) | 1 (0.0) |
| Hong Kong, SAR | — | — | 93 (2.2) | 92 (2.4) | 86 (3.2) |
| Hungary | 1 (0.7) | 4 (1.7) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Iceland | r 34 (0.4) | r 20 (0.4) | r 3 (0.1) | r 6 (0.2) | r 0 (0.0) |
| Iran, Islamic Rep. of | 5 (1.5) | 5 (1.4) | 3 (1.3) | 3 (1.2) | 2 (0.9) |
| Israel | 16 (3.0) | 14 (3.1) | 7 (2.1) | 5 (2.0) | 6 (1.8) |
| Italy | 16 (2.4) | 15 (2.8) | 2 (1.1) | 3 (1.3) | 2 (1.1) |
| Kuwait | 13 (3.8) | 12 (3.5) | 10 (3.3) | 10 (3.2) | 7 (2.6) |
| Latvia | 38 (4.3) | 12 (2.4) | 19 (3.5) | 6 (2.0) | 5 (2.0) |
| Lithuania | 21 (3.2) | 9 (2.0) | 8 (2.2) | 4 (1.7) | 2 (1.2) |
| Macedonia, Rep. of | 27 (3.9) | 17 (3.3) | 7 (2.4) | 4 (1.6) | 3 (1.6) |
| Moldova, Rep. of | 37 (3.9) | 27 (3.7) | 17 (3.3) | 14 (3.4) | 13 (3.2) |
| Morocco | 28 (4.4) | 25 (4.4) | 21 (4.3) | 18 (3.9) | 12 (3.2) |
| Netherlands | 13 (3.0) | 3 (1.6) | 3 (1.7) | 1 (1.0) | 0 (0.0) |
| New Zealand | 11 (2.1) | 10 (2.4) | 8 (2.1) | 5 (1.7) | 3 (1.4) |
| Norway | 5 (2.5) | 12 (3.0) | 0 (0.0) | 3 (1.6) | 0 (0.0) |
| Romania | 14 (2.9) | 14 (2.9) | 5 (2.0) | 4 (1.8) | 2 (1.3) |
| Russian Federation | 44 (3.4) | 4 (1.5) | 15 (2.6) | 3 (1.2) | 4 (1.5) |
| Scotland | 7 (2.3) | 5 (2.4) | 2 (1.2) | 1 (0.0) | 1 (1.0) |
| Singapore | 78 (3.2) | 69 (3.5) | 59 (3.7) | 51 (3.7) | 39 (3.5) |
| Slovak Republic | 1 (1.0) | 1 (0.7) | 1 (1.0) | 1 (0.7) | 1 (0.7) |
| Slovenia | 73 (3.2) | 66 (3.9) | 62 (4.0) | 59 (4.2) | 51 (4.4) |
| Sweden | 34 (4.6) | 35 (4.9) | 12 (3.1) | 17 (3.7) | 1 (0.9) |
| Turkey | 3 (1.5) | 2 (1.2) | 2 (1.2) | 2 (1.2) | 2 (1.3) |
| United States | 61 (4.5) | 56 (4.3) | 45 (4.2) | 40 (4.0) | 24 (3.5) |
| International Avg. | 24 (0.6) | 19 (0.5) | 17 (0.5) | 14 (0.4) | 10 (0.4) |

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

Background data provided by schools.

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

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

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

Exhibit 5.5: Students Based on Parents' Reports of How Well They Could Do Early Literacy Activities Beginning School***ISC** 4th Grade
PIRLS 2001

| Countries | | Very Well | | Moderately Well | | Not Very Well | | Not at All | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 18 (0.9) | 464 (7.0) | 37 (1.5) | 440 (6.7) | 31 (1.3) | 413 (6.9) | 13 (1.9) | 393 (9.1) |
| Belize | s | 17 (1.1) | 392 (8.6) | 30 (1.3) | 344 (6.8) | 34 (1.4) | 316 (6.1) | 19 (1.6) | 276 (6.5) |
| Bulgaria | | 29 (1.1) | 590 (4.0) | 32 (1.0) | 559 (3.5) | 23 (1.0) | 538 (4.3) | 16 (1.8) | 501 (9.4) |
| Canada (O,Q) | r | 32 (1.0) | 579 (2.8) | 38 (0.8) | 546 (2.5) | 24 (0.8) | 527 (3.0) | 6 (0.4) | 519 (6.0) |
| Colombia | r | 23 (1.2) | 456 (6.7) | 33 (1.3) | 434 (5.0) | 28 (1.2) | 411 (5.2) | 16 (1.2) | 395 (5.3) |
| Cyprus | s | 21 (0.9) | 515 (5.1) | 29 (0.9) | 490 (4.3) | 29 (1.2) | 481 (5.3) | 21 (1.1) | 490 (6.7) |
| Czech Republic | | 8 (0.5) | 568 (5.6) | 19 (0.8) | 552 (3.7) | 36 (1.0) | 536 (2.8) | 37 (1.1) | 532 (3.0) |
| England | s | 29 (1.3) | 602 (5.3) | 43 (1.3) | 572 (3.9) | 22 (1.2) | 543 (6.5) | 6 (0.7) | 523 (8.2) |
| France | | 24 (0.9) | 548 (3.8) | 41 (1.1) | 530 (2.5) | 28 (1.0) | 514 (4.2) | 6 (0.5) | 498 (6.7) |
| Germany | | 11 (0.4) | 554 (3.5) | 29 (0.8) | 543 (2.4) | 35 (0.7) | 542 (2.2) | 24 (0.7) | 541 (3.2) |
| Greece | | 39 (1.0) | 540 (3.4) | 31 (1.3) | 518 (5.5) | 19 (1.2) | 518 (4.4) | 11 (0.9) | 513 (7.4) |
| Hong Kong, SAR | | -- | -- | -- | -- | -- | -- | -- | -- |
| Hungary | | 9 (0.6) | 585 (5.1) | 17 (0.7) | 553 (4.1) | 33 (0.9) | 541 (2.6) | 41 (0.9) | 538 (2.6) |
| Iceland | r | 17 (0.7) | 565 (3.4) | 28 (0.9) | 523 (2.5) | 37 (0.9) | 505 (2.3) | 18 (0.6) | 487 (2.9) |
| Iran, Islamic Rep. of | | 25 (0.9) | 451 (4.9) | 30 (1.1) | 417 (4.9) | 20 (0.9) | 411 (6.7) | 25 (1.7) | 381 (6.3) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 16 (0.9) | 568 (4.0) | 36 (0.9) | 546 (3.1) | 32 (0.9) | 534 (3.1) | 16 (0.6) | 535 (3.4) |
| Kuwait | r | 14 (0.5) | 430 (5.6) | 25 (0.7) | 412 (5.0) | 32 (0.6) | 399 (4.5) | 29 (0.6) | 381 (5.6) |
| Latvia | | 23 (1.1) | 580 (3.1) | 42 (0.9) | 550 (2.8) | 28 (1.1) | 525 (3.8) | 6 (0.7) | 503 (6.5) |
| Lithuania | | 23 (1.1) | 578 (3.5) | 39 (1.3) | 550 (2.7) | 26 (1.0) | 523 (3.6) | 12 (0.6) | 500 (4.8) |
| Macedonia, Rep. of | r | 39 (1.2) | 471 (5.9) | 34 (1.2) | 452 (6.0) | 19 (0.9) | 426 (7.9) | 7 (1.0) | 406 (12.5) |
| Moldova, Rep. of | | 12 (0.8) | 520 (5.3) | 28 (1.1) | 511 (5.4) | 36 (1.3) | 483 (4.4) | 23 (1.6) | 471 (5.6) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 11 (0.7) | 585 (5.3) | 29 (1.0) | 565 (3.3) | 37 (1.0) | 559 (3.0) | 23 (1.1) | 559 (3.3) |
| New Zealand | r | 23 (1.1) | 558 (5.4) | 40 (1.3) | 543 (4.6) | 28 (1.1) | 526 (5.4) | 9 (0.8) | 497 (8.2) |
| Norway | | 19 (0.7) | 551 (4.9) | 37 (1.2) | 511 (2.9) | 31 (1.1) | 480 (4.2) | 13 (0.7) | 459 (6.1) |
| Romania | | 18 (1.2) | 551 (5.6) | 29 (1.3) | 529 (4.9) | 32 (1.4) | 503 (6.7) | 21 (1.4) | 479 (7.4) |
| Russian Federation | | 14 (0.9) | 566 (3.6) | 30 (1.3) | 543 (3.7) | 33 (1.1) | 517 (4.5) | 24 (1.7) | 501 (9.1) |
| Scotland | s | 11 (0.7) | 565 (7.6) | 41 (1.1) | 545 (4.9) | 35 (1.2) | 538 (4.6) | 13 (1.0) | 527 (8.2) |
| Singapore | | 50 (1.6) | 569 (4.0) | 38 (1.0) | 511 (4.4) | 11 (0.8) | 440 (7.8) | 1 (0.2) | ~ ~ |
| Slovak Republic | | 7 (0.5) | 546 (5.7) | 19 (0.8) | 535 (5.0) | 38 (0.8) | 519 (3.0) | 36 (1.0) | 511 (3.4) |
| Slovenia | | 27 (1.0) | 543 (2.9) | 37 (1.1) | 504 (2.2) | 26 (1.0) | 477 (3.6) | 11 (0.7) | 469 (5.3) |
| Sweden | | 28 (0.7) | 595 (2.8) | 35 (0.6) | 563 (2.6) | 28 (0.8) | 545 (2.9) | 9 (0.5) | 530 (4.6) |
| Turkey | | 22 (1.1) | 474 (4.9) | 29 (1.1) | 451 (4.2) | 25 (1.1) | 444 (4.9) | 24 (1.4) | 437 (6.0) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 21 (0.2) | 537 (0.9) | 33 (0.2) | 511 (0.7) | 29 (0.2) | 491 (0.9) | 17 (0.2) | 478 (1.2) |

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

*Based on parents' responses to questions about how well their child could do the following when he/she began primary school: Recognize most of the letters of the alphabet; write letters of the alphabet; read some words; write some words; and read sentences (see Exhibit 5.6 for details of these items). Average is computed across the 5 items based on a 4-point scale: Not at all = 1,

Not very well = 2, Moderately well = 3, and Very well = 4. Very well indicates an average response score of greater than 3.25 through 4. Moderately well indicates an average of greater than 2.5 through 3.25. Not very well indicates an average of 1.75 through 2.5. Not at all indicates an average of 1 to less than 1.75.

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

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

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

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

Parents' reports of their children's early literacy skills fit well with the students' subsequent performance in fourth grade on the PIRLS reading assessment. Across countries, students whose parents reported that they did very well across the five literacy activities had an average score of 537 on the PIRLS test, compared with an average of 511 for those who did moderately well, 491 for those doing not very well, and 478 for those who could not do them at all.

Of the individual literacy activities that, according to parents, their child beginning school could do very well, recognize most of the alphabet was most common (32% of students had parents reporting this), followed by write letters of the alphabet (27%), read some words (18%), write some words (17%), and read sentences (12%) (see Exhibit 5.6).

How Much Is Reading Emphasized in the School Curriculum?

To provide an overview of how emphasis on reading skills and strategies changes through the grades of primary school, PIRLS asked school principals in which grade a range of reading skills and strategies first received major emphasis in their schools. Exhibit 5.7 presents these results in a two-page spread, showing for each skill or strategy the grade by which it was emphasized for at least 50 percent of students in each country. On average, across countries, knowing letters of the alphabet, knowing letter-sound relationships, reading words, reading isolated sentences, and reading connected text first received major emphasis in the first grade. Identifying the main idea of the text and explaining or supporting understanding of the text first become emphasized in the second grade. More complex activities, such as comparing text with personal experience, comparing different texts, making predictions about what will happen next in the text, and making generalizations and inferences based on

Exhibit 5.6: Students Whose Parents Reported They Could Do Specific Early Literacy Activities Beginning School**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Who Could Do Activity Very Well | | | | |
|-----------------------|--|-------------------------------|-----------------|------------------|----------------|
| | Recognize Most of the Alphabet | Write Letters of the Alphabet | Read Some Words | Write Some Words | Read Sentences |
| Argentina | s 24 (1.3) | s 27 (1.3) | s 15 (0.8) | s 22 (1.1) | s 11 (0.7) |
| Belize | s 29 (1.5) | s 29 (1.4) | s 15 (1.0) | s 18 (1.3) | s 11 (1.1) |
| Bulgaria | 49 (1.4) | 38 (1.2) | 25 (1.0) | 21 (0.9) | 14 (0.8) |
| Canada (O,Q) | r 56 (0.9) | r 40 (1.0) | r 25 (0.8) | r 20 (0.7) | r 13 (0.7) |
| Colombia | 29 (1.2) | r 30 (1.3) | r 18 (1.0) | r 24 (1.0) | r 16 (0.8) |
| Cyprus | s 24 (1.2) | s 27 (1.0) | s 17 (1.0) | s 19 (0.8) | s 13 (0.9) |
| Czech Republic | 20 (0.9) | 12 (0.7) | 8 (0.6) | 4 (0.4) | 5 (0.4) |
| England | s 43 (1.5) | s 30 (1.3) | s 25 (1.3) | s 18 (1.3) | s 12 (0.9) |
| France | 41 (1.0) | 38 (1.0) | 21 (0.7) | 20 (0.8) | 9 (0.5) |
| Germany | 21 (0.6) | 19 (0.6) | 10 (0.3) | 12 (0.4) | 4 (0.3) |
| Greece | 50 (1.1) | 54 (1.2) | 32 (1.0) | 34 (1.2) | 19 (0.9) |
| Hong Kong, SAR | -- | -- | 27 (1.0) | 27 (0.9) | 24 (0.8) |
| Hungary | 16 (0.8) | 11 (0.6) | 9 (0.5) | 9 (0.5) | 6 (0.5) |
| Iceland | r 40 (0.9) | r 26 (0.8) | r 16 (0.8) | r 12 (0.6) | r 9 (0.6) |
| Iran, Islamic Rep. of | 26 (1.2) | 32 (1.4) | 19 (0.9) | 22 (0.9) | 18 (0.9) |
| Israel | x x | x x | x x | x x | x x |
| Italy | 26 (0.9) | 31 (0.8) | 12 (0.8) | 16 (0.8) | 6 (0.4) |
| Kuwait | r 19 (0.5) | r 18 (0.5) | r 12 (0.5) | r 12 (0.5) | r 8 (0.4) |
| Latvia | 39 (1.2) | 20 (1.1) | 26 (1.2) | 15 (0.9) | 15 (0.9) |
| Lithuania | 36 (1.3) | 25 (1.0) | 21 (1.0) | 12 (0.8) | 13 (0.9) |
| Macedonia, Rep. of | r 47 (1.2) | r 50 (1.3) | r 27 (1.0) | r 34 (1.0) | r 23 (0.9) |
| Moldova, Rep. of | 21 (1.1) | 16 (0.8) | 11 (0.9) | 12 (0.9) | 7 (0.6) |
| Morocco | -- | -- | -- | -- | -- |
| Netherlands | s 16 (0.8) | s 10 (0.8) | s 12 (0.8) | s 8 (0.6) | s 6 (0.5) |
| New Zealand | r 38 (1.2) | r 26 (1.1) | r 19 (1.0) | r 15 (0.9) | r 9 (0.7) |
| Norway | 31 (0.9) | 27 (0.9) | 17 (0.7) | 16 (0.7) | 8 (0.5) |
| Romania | 20 (1.1) | 26 (1.3) | 13 (0.9) | 16 (1.0) | 8 (0.7) |
| Russian Federation | 33 (1.6) | 11 (0.7) | 18 (1.0) | 8 (0.5) | 12 (0.7) |
| Scotland | s 25 (1.0) | s 14 (1.0) | s 12 (0.8) | s 8 (0.6) | s 3 (0.5) |
| Singapore | 59 (1.6) | 53 (1.5) | 35 (1.4) | 34 (1.4) | 28 (1.4) |
| Slovak Republic | 17 (0.8) | 12 (0.7) | 8 (0.5) | 5 (0.4) | 4 (0.4) |
| Slovenia | 45 (1.1) | 39 (1.0) | 21 (0.9) | 18 (0.7) | 10 (0.7) |
| Sweden | 40 (0.8) | 30 (0.8) | 26 (0.7) | 21 (0.6) | 12 (0.6) |
| Turkey | 25 (1.2) | 32 (1.2) | 17 (0.8) | 22 (1.0) | 17 (0.8) |
| United States | -- | -- | -- | -- | -- |
| International Avg. | 32 (0.2) | 27 (0.2) | 18 (0.2) | 17 (0.2) | 12 (0.1) |

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

Background data provided by parents.

() 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 5.7: Schools' Grade-by-Grade Emphases on Reading Comprehension Skills or Strategies
ISC 4th Grade
PIRLS 2001

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

*N = Not by Grade 4

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

Background data provided by schools.

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

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

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

Exhibit 5.7: Schools' Grade-by-Grade Emphases on Reading Comprehension Skills or Strategies (Continued)**ISC****4th Grade**
PIRLS 2001

| Countries | Grade by Which Skill or Strategy Is Emphasized for at Least 50% of the Students* | | | | | |
|-----------------------|---|--|--|---------------------------------|--|---|
| | Explaining or Supporting Text Understanding | Comparing Text with Personal Experience | Making Predictions About What Will Happen Next in Text | Comparing Different Texts | Making Generalizations and Inferences Based on Text | Describing Text Style and Structure |
| Argentina | 2 | 3 | 3 | 3 | 4 | 4 |
| Belize | r 3 | r 3 | r 3 | 4 | 4 | r 4 |
| Bulgaria | 2 | 2 | 3 | 3 | 3 | 4 |
| Canada (O,Q) | 2 | 2 | 2 | 3 | 2 | 3 |
| Colombia | 3 | 4 | 4 | 4 | 4 | 4 |
| Cyprus | r 2 | r 2 | r 2 | r 3 | r 3 | r 3 |
| Czech Republic | 2 | 2 | 3 | 3 | 3 | 4 |
| England | 1 | 2 | 1 | 2 | 2 | 2 |
| France | 2 | 3 | 3 | 3 | 4 | 4 |
| Germany | 2 | 2 | 3 | 3 | 3 | 4 |
| Greece | 2 | 2 | 3 | 3 | 3 | 4 |
| Hong Kong, SAR | 3 | 4 | 4 | 4 | 4 | N |
| Hungary | 2 | 2 | 3 | 3 | 3 | 4 |
| Iceland | r 2 | s 3 | s 3 | r 4 | r 4 | r N |
| Iran, Islamic Rep. of | 3 | 4 | 4 | 4 | 4 | 4 |
| Israel | 1 | 2 | 2 | 3 | 2 | 3 |
| Italy | 2 | 2 | 3 | 3 | 3 | 4 |
| Kuwait | 4 | r 4 | r 4 | 4 | 4 | N |
| Latvia | r 2 | r 2 | s 3 | r 3 | r 3 | r 4 |
| Lithuania | r 2 | r 2 | r 3 | r 3 | r 3 | r 4 |
| Macedonia, Rep. of | r 2 | 3 | 3 | 3 | 4 | 4 |
| Moldova, Rep. of | r 2 | r 2 | r 3 | r 2 | r 3 | 3 |
| Morocco | 4 | 4 | N | N | N | N |
| Netherlands | r 2 | r 3 | r 3 | r 3 | r 4 | r 4 |
| New Zealand | 1 | 1 | 1 | 2 | 2 | 3 |
| Norway | 3 | 3 | 3 | 4 | 4 | N |
| Romania | r 2 | r 3 | r 3 | r 3 | 4 | 4 |
| Russian Federation | 1 | 2 | 2 | 2 | 2 | 3 |
| Scotland | 2 | 2 | 1 | 2 | 3 | 3 |
| Singapore | 2 | 2 | 1 | 3 | 3 | 4 |
| Slovak Republic | 2 | 3 | 3 | 3 | 4 | 4 |
| Slovenia | 2 | 3 | 3 | 3 | 3 | N |
| Sweden | 2 | 2 | 3 | 3 | 4 | 4 |
| Turkey | 2 | 3 | 4 | 3 | 4 | 4 |
| United States | 2 | 1 | 1 | 2 | 2 | 3 |
| International Avg. | 2 | 2 | 3 | 3 | 3 | 4 |

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

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

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

Schools may have a range of policies and procedures in place to promote reading instruction throughout the school. According to principals' reports summarized in Exhibit 5.9, schools varied widely in the extent to which they had a policy to coordinate reading instruction across the primary school grades (grades 4 and below). In Argentina, Bulgaria, England, Hungary, Iceland, Macedonia, the Russian Federation, Scotland, and the United States a policy of coordination was quite common, with more than 70 percent of students in schools that coordinate reading instruction, whereas coordination across the grades was much less frequently reported in Germany, Norway, and the Slovak Republic, where less than 30 percent of students attended such schools.

Having its own written statement of the reading curriculum to be taught in the school was not very common except in England, Israel, New Zealand, Scotland, and the United States, where more than 70 percent of students attended schools with such a statement, compared with just 37 percent of students, on average, internationally. A more usual practice was to have informal initiatives such as book clubs, independent reading contests, and

Exhibit 5.8: Teachers Ask Students to Do Classroom Activities at Least Weekly to Develop Reading Comprehension Skills or Strategies**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students in Classrooms Where Teachers Ask Them To | | | | | | |
|-----------------------|---|--|--------------------------------------|--------------------------------|--|--|----------------------------------|
| | Identify Main Ideas | Explain or Support Their Understanding | Compare Reading with Own Experiences | Compare with Other Things Read | Make Predictions About What Will Happen Next | Make Generalizations and Draw Inferences | Describe Text Style or Structure |
| Argentina | 87 (3.7) | 88 (3.3) | 71 (5.0) | 70 (5.0) | 63 (4.4) | 58 (5.0) | 57 (5.0) |
| Belize | 95 (1.9) | 90 (2.9) | 80 (3.9) | r 70 (5.2) | 86 (3.1) | 63 (6.8) | 45 (5.5) |
| Bulgaria | 100 (0.0) | 99 (0.6) | 90 (2.4) | 75 (3.5) | 71 (3.8) | 97 (1.4) | 74 (3.6) |
| Canada (O,Q) | 88 (2.1) | 87 (2.5) | 69 (3.4) | 51 (3.6) | 80 (2.2) | 71 (3.3) | 46 (3.3) |
| Colombia | 89 (3.3) | 87 (2.9) | 67 (4.5) | 65 (4.2) | 59 (4.9) | 55 (4.7) | 44 (4.9) |
| Cyprus | 92 (2.5) | 93 (2.6) | 96 (1.8) | 77 (4.5) | 79 (4.4) | 85 (4.1) | 75 (4.2) |
| Czech Republic | 97 (1.6) | 94 (1.8) | 79 (3.8) | 43 (3.9) | 39 (4.1) | 70 (3.6) | 30 (4.4) |
| England | 93 (2.3) | 94 (2.2) | 66 (4.9) | 65 (4.8) | 83 (3.4) | 85 (3.1) | 84 (3.5) |
| France | 80 (2.9) | 78 (2.9) | 31 (3.0) | 23 (3.0) | 40 (3.6) | 23 (3.3) | 34 (3.9) |
| Germany | 93 (1.4) | 94 (1.4) | 72 (3.1) | 53 (2.9) | 52 (3.4) | 64 (3.1) | 26 (2.5) |
| Greece | 92 (2.1) | 85 (3.2) | 87 (3.0) | 68 (4.6) | 68 (4.2) | 82 (3.9) | 67 (4.9) |
| Hong Kong, SAR | 80 (3.3) | 72 (4.4) | 57 (4.8) | 31 (3.9) | 43 (4.7) | 46 (4.1) | 49 (4.5) |
| Hungary | 94 (2.0) | 99 (1.0) | 86 (2.9) | 80 (3.2) | 56 (3.6) | 92 (1.9) | 82 (3.2) |
| Iceland | – – | 62 (0.4) | 37 (0.4) | 9 (0.2) | 17 (0.3) | 32 (0.4) | 1 (0.1) |
| Iran, Islamic Rep. of | 90 (2.1) | 81 (3.8) | 56 (4.5) | 50 (4.6) | 49 (4.6) | 73 (3.7) | 58 (4.3) |
| Israel | 95 (2.1) | 96 (1.5) | 87 (2.9) | 79 (3.6) | 81 (3.6) | 89 (2.9) | 78 (4.2) |
| Italy | 96 (1.5) | 96 (1.6) | 79 (2.8) | 64 (3.5) | 58 (3.7) | 48 (3.7) | 64 (3.7) |
| Kuwait | 88 (2.6) | 97 (0.7) | 84 (3.3) | 71 (3.5) | r 64 (3.9) | 67 (4.1) | 59 (3.9) |
| Latvia | 99 (0.7) | 96 (1.7) | 84 (3.6) | 64 (4.4) | 66 (4.3) | 86 (3.3) | 36 (4.2) |
| Lithuania | 99 (1.0) | 99 (1.0) | 90 (2.7) | 81 (3.4) | 73 (3.9) | 96 (1.7) | 71 (3.6) |
| Macedonia, Rep. of | 99 (0.8) | 96 (2.0) | 84 (3.3) | 74 (4.3) | 65 (4.7) | 91 (2.7) | 77 (3.9) |
| Moldova, Rep. of | 96 (1.6) | 99 (0.9) | 91 (2.6) | 90 (2.4) | 70 (3.7) | 98 (1.2) | 87 (2.9) |
| Morocco | 92 (2.8) | 94 (2.8) | 46 (5.7) | 41 (5.5) | 45 (4.8) | 79 (4.2) | r 42 (5.3) |
| Netherlands | 71 (4.0) | 76 (3.5) | 52 (4.8) | 37 (4.4) | 46 (4.5) | 57 (4.6) | 31 (4.5) |
| New Zealand | 90 (2.7) | 93 (2.2) | 82 (3.6) | 62 (4.2) | 85 (3.0) | 83 (3.4) | 53 (4.2) |
| Norway | 48 (4.3) | 51 (4.3) | 27 (3.7) | 15 (2.7) | 20 (3.2) | 29 (3.8) | 5 (1.8) |
| Romania | 99 (0.7) | 99 (0.8) | 80 (3.4) | 78 (3.7) | 73 (3.9) | 93 (2.2) | 75 (3.6) |
| Russian Federation | 100 (0.0) | 99 (0.5) | 89 (2.4) | 76 (2.7) | 74 (2.7) | 96 (1.5) | 58 (3.6) |
| Scotland | 87 (2.9) | 92 (2.3) | 67 (4.6) | 41 (4.7) | 76 (4.6) | 76 (3.8) | 51 (5.6) |
| Singapore | 91 (2.2) | 96 (1.3) | 79 (2.9) | 59 (3.6) | 77 (3.2) | 76 (3.0) | 30 (3.5) |
| Slovak Republic | 96 (1.8) | 99 (0.8) | 87 (2.7) | 62 (3.9) | 65 (4.1) | 51 (3.9) | 39 (3.7) |
| Slovenia | 88 (2.7) | 92 (2.5) | 82 (3.3) | 52 (4.5) | 42 (4.6) | 62 (4.1) | 48 (4.3) |
| Sweden | 59 (3.4) | 77 (2.8) | 47 (3.6) | 35 (3.4) | 17 (2.2) | 40 (3.3) | 4 (1.2) |
| Turkey | 98 (1.2) | 99 (0.7) | 77 (3.6) | 74 (4.2) | 71 (3.9) | 93 (2.2) | 70 (4.1) |
| United States | 94 (2.4) | 95 (1.5) | 87 (3.0) | 74 (4.0) | 95 (1.5) | 88 (3.4) | 56 (4.6) |
| International Avg. | 90 (0.4) | 90 (0.4) | 73 (0.6) | 59 (0.7) | 61 (0.6) | 71 (0.6) | 52 (0.7) |

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

Background data provided by teachers.

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

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

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

Exhibit 5.9: Emphasis on Reading Curriculum in the Schools**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Schools Have Various Policies and Procedures | | | | | | |
|-----------------------|---|---|---|--|-----------------------------------|---|--|
| | Coordination of Reading Instruction Across Grades | Own Written Statement of Reading Curriculum | Informal Initiatives to Encourage Reading | Reading Instruction Improvement for Teachers | Emphasis in Curriculum on Reading | Emphasis in Curriculum on Writing (Not Handwriting) | Emphasis in Curriculum on Speaking/Listening |
| Argentina | 72 (4.6) | 56 (4.4) | 80 (3.6) | 55 (4.8) | 95 (1.9) | 81 (3.9) | 88 (2.3) |
| Belize | r 46 (7.1) | 14 (3.9) | 55 (7.3) | 47 (8.7) | 88 (4.0) | 41 (8.0) | 52 (6.1) |
| Bulgaria | 76 (3.5) | 7 (2.2) | 57 (4.2) | 35 (3.5) | 87 (2.8) | 67 (4.0) | 46 (3.8) |
| Canada (O,Q) | 48 (3.6) | 27 (3.3) | 94 (1.6) | 78 (2.9) | 84 (2.6) | 74 (2.8) | 44 (3.2) |
| Colombia | 52 (4.6) | 24 (3.8) | 61 (5.1) | 35 (5.1) | 79 (3.7) | 59 (4.9) | 48 (5.1) |
| Cyprus | 62 (5.4) | 8 (3.1) | 74 (5.0) | 58 (4.8) | 68 (5.7) | 50 (5.3) | 57 (6.2) |
| Czech Republic | 36 (4.2) | 29 (4.5) | 67 (3.7) | 29 (4.0) | 66 (4.0) | 30 (3.8) | 50 (4.3) |
| England | 76 (4.4) | 73 (4.3) | 95 (2.1) | 67 (4.5) | 86 (3.3) | 86 (3.5) | 55 (4.3) |
| France | 49 (4.9) | 46 (5.3) | 79 (4.4) | 29 (4.7) | 73 (4.8) | 36 (4.7) | 37 (5.0) |
| Germany | 23 (3.5) | 25 (3.8) | 86 (3.1) | 24 (3.5) | 37 (4.1) | 26 (3.8) | 24 (4.0) |
| Greece | 39 (4.4) | 11 (2.3) | 61 (4.7) | 28 (3.9) | 81 (4.1) | 58 (5.2) | 57 (4.9) |
| Hong Kong, SAR | 61 (4.5) | 57 (4.0) | 97 (1.4) | 34 (4.3) | 80 (3.4) | 70 (3.6) | 42 (4.3) |
| Hungary | 93 (2.2) | 53 (4.3) | 78 (3.5) | 47 (4.2) | 78 (3.7) | 44 (4.2) | 62 (4.2) |
| Iceland | r 73 (0.4) | r 58 (0.4) | r 97 (0.2) | r 44 (0.4) | r 90 (0.2) | r 41 (0.4) | r 31 (0.4) |
| Iran, Islamic Rep. of | 58 (4.3) | 43 (5.3) | 60 (4.7) | 31 (4.4) | 81 (3.6) | 62 (4.5) | 68 (4.3) |
| Israel | 66 (4.5) | 75 (3.6) | 85 (3.1) | 73 (4.1) | 87 (2.9) | 71 (4.1) | 55 (4.9) |
| Italy | 35 (4.3) | 44 (3.4) | 73 (3.5) | 38 (3.5) | 63 (3.9) | 42 (3.1) | 37 (3.8) |
| Kuwait | 68 (3.8) | 18 (3.7) | 72 (3.5) | 54 (3.6) | 76 (3.5) | 81 (3.9) | 70 (3.3) |
| Latvia | 58 (4.1) | 7 (1.9) | 76 (3.1) | 28 (3.1) | 89 (2.6) | 76 (3.8) | 70 (4.2) |
| Lithuania | 54 (4.3) | 47 (4.1) | 61 (4.2) | 16 (3.2) | 51 (3.8) | 48 (3.8) | 34 (3.8) |
| Macedonia, Rep. of | 73 (4.2) | 36 (4.2) | 77 (3.5) | 44 (4.3) | 72 (4.4) | 51 (4.8) | 50 (4.2) |
| Moldova, Rep. of | 64 (4.4) | 15 (3.0) | 74 (4.2) | 36 (4.2) | 85 (3.0) | 33 (3.8) | 66 (4.3) |
| Morocco | 39 (4.7) | 17 (3.7) | 41 (5.1) | 48 (5.2) | 96 (1.8) | 77 (3.9) | 84 (3.2) |
| Netherlands | 49 (4.8) | 38 (4.3) | 50 (4.1) | 37 (4.8) | 75 (4.3) | 25 (4.7) | 30 (5.2) |
| New Zealand | 68 (3.9) | 90 (2.4) | 87 (3.1) | 84 (3.3) | 95 (1.7) | 85 (3.4) | 77 (3.3) |
| Norway | 29 (3.9) | 21 (4.7) | 80 (3.6) | 46 (4.7) | 90 (2.5) | 69 (4.1) | 65 (4.9) |
| Romania | 68 (4.0) | 29 (4.1) | 57 (4.2) | 49 (3.9) | 85 (3.8) | 73 (4.7) | 75 (3.6) |
| Russian Federation | 91 (1.9) | 5 (2.2) | 64 (3.3) | 37 (3.6) | 63 (4.0) | 37 (4.5) | 40 (4.3) |
| Scotland | 89 (4.0) | 93 (2.5) | 91 (3.1) | 74 (4.1) | 81 (3.9) | 62 (5.3) | 41 (5.3) |
| Singapore | 66 (4.0) | 49 (4.0) | 99 (0.8) | 77 (3.3) | 77 (3.1) | 50 (3.4) | 54 (3.9) |
| Slovak Republic | 27 (3.9) | 25 (3.8) | 78 (3.6) | 55 (4.1) | 62 (4.0) | 23 (3.8) | 40 (4.5) |
| Slovenia | 63 (4.2) | 13 (2.8) | 100 (0.0) | 28 (4.0) | 61 (4.5) | 31 (4.2) | 45 (4.6) |
| Sweden | 51 (4.9) | 65 (4.7) | 87 (2.9) | 64 (4.8) | 89 (2.3) | 61 (4.5) | 60 (4.3) |
| Turkey | 37 (4.1) | 9 (2.4) | 57 (4.0) | 22 (3.1) | 67 (3.6) | 31 (3.6) | 42 (3.9) |
| United States | 83 (3.6) | 72 (4.1) | 95 (1.7) | 90 (2.7) | 95 (2.1) | 73 (5.3) | 39 (4.2) |
| International Avg. | 58 (0.7) | 37 (0.6) | 76 (0.6) | 47 (0.7) | 78 (0.6) | 55 (0.7) | 52 (0.7) |

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

Background data provided by schools.

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

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

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

school-wide recreational reading periods to encourage students to read. On average, across the PIRLS countries, 76 percent of students were in schools with such initiatives, as were almost all students (more than 90%) in Canada (O,Q), England, Hong Kong, Iceland, Scotland, Singapore, Slovenia, and the United States. Almost half the students (47%) internationally attended schools that provided school-based programs for teachers geared towards the improvement of reading instruction. This practice was more common in Canada (O,Q), Israel, New Zealand, Scotland, Singapore, and the United States, where more than 70 percent of students were in schools providing such teacher programs.

Exhibit 5.9 also shows principals' reports on placing more emphasis, relative to other areas of the curriculum, on teaching reading, writing, and speaking/listening in the primary school grades (one through four). Of the three, reading was most often emphasized more than other areas of the curriculum according to principals. Almost four-fifths (78%) of students, on average, were in schools where reading received more emphasis than other areas of the curriculum. Fifty-five percent were in schools where writing received more emphasis, and 52 percent where listening/speaking was emphasized more.

According to principals' reports presented in Exhibit 5.10, in most countries the national or regional curriculum was by far the greatest influence on their schools' fourth-grade curriculum. On average, internationally, 80 percent of students attended schools where the principal reported that the national or regional curriculum had a lot of influence, and in several countries the figure was more than 90 percent. National or regional examinations or assessments of student achievement had an important influence on the school curriculum in several countries, including England, Iran, Moldova, Scotland, Singapore, and the United States. Standardized tests other than national or regional examinations or assessments, parents' wishes, and students' wishes were less often reported to have a major influence on the school curriculum.

Exhibit 5.10: Influence of Various Factors on Schools' Curriculum
ISC 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Schools Reported Factor as Having A Lot of Influence | | | | |
|-----------------------|---|--|--------------------------|-----------------|------------------|
| | National or Regional Curriculum | National or Regional Student Achievement Examinations/ Assessments | Other Standardized Tests | Parents' Wishes | Students' Wishes |
| Argentina | 80 (4.1) | 27 (4.3) | 10 (2.5) | 34 (4.7) | 50 (4.7) |
| Belize | 85 (4.9) | 45 (7.7) | r 15 (4.6) | 14 (4.5) | 11 (3.7) |
| Bulgaria | 89 (2.8) | 16 (2.7) | 8 (2.0) | 14 (2.6) | 20 (2.9) |
| Canada (O,Q) | 94 (1.4) | 28 (3.1) | 12 (2.4) | 7 (1.8) | 5 (1.3) |
| Colombia | 75 (4.0) | 28 (4.0) | 7 (3.0) | 28 (4.4) | 39 (5.2) |
| Cyprus | 94 (2.5) | r 10 (3.3) | r 3 (2.1) | r 7 (3.3) | r 6 (2.2) |
| Czech Republic | 82 (3.4) | 2 (1.2) | 1 (0.8) | 12 (3.1) | 6 (2.0) |
| England | 92 (2.3) | 59 (4.8) | 7 (2.4) | 7 (2.4) | 4 (2.0) |
| France | 78 (4.0) | 19 (4.0) | 10 (3.4) | 1 (1.0) | 11 (3.3) |
| Germany | 93 (2.2) | 10 (2.8) | 1 (0.7) | 2 (1.1) | 5 (1.8) |
| Greece | 90 (2.7) | 1 (0.1) | 1 (0.8) | 1 (1.0) | 3 (1.0) |
| Hong Kong, SAR | 52 (4.5) | 15 (3.0) | 12 (2.6) | 20 (2.8) | 13 (2.9) |
| Hungary | 83 (2.8) | 8 (2.2) | 1 (0.8) | 12 (2.4) | 3 (1.5) |
| Iceland | r 85 (0.3) | r 11 (0.3) | r 2 (0.0) | r 7 (0.3) | r 2 (0.1) |
| Iran, Islamic Rep. of | 54 (4.4) | 53 (5.2) | 28 (4.4) | 29 (4.0) | 42 (4.7) |
| Israel | 81 (3.1) | 41 (4.2) | 25 (4.0) | 4 (1.6) | 5 (1.9) |
| Italy | 84 (2.7) | 7 (2.0) | 9 (2.0) | 9 (2.3) | 18 (3.0) |
| Kuwait | 49 (3.6) | r 21 (2.6) | r 11 (2.5) | r 10 (2.9) | r 10 (2.4) |
| Latvia | 94 (2.0) | 40 (4.0) | 9 (2.1) | 18 (3.3) | 19 (3.5) |
| Lithuania | 74 (4.0) | 24 (4.0) | 10 (2.7) | 27 (3.6) | 25 (3.5) |
| Macedonia, Rep. of | 88 (2.8) | 26 (4.1) | 16 (3.4) | 16 (2.9) | 23 (3.5) |
| Moldova, Rep. of | 65 (4.5) | 59 (4.4) | 24 (3.9) | 14 (2.8) | 19 (3.3) |
| Morocco | 52 (5.0) | 25 (3.8) | r 15 (3.6) | r 9 (2.9) | r 14 (4.0) |
| Netherlands | 67 (4.5) | 25 (3.3) | 26 (4.3) | 3 (1.6) | 5 (1.9) |
| New Zealand | 91 (2.6) | 11 (2.9) | 15 (3.5) | 12 (2.9) | 6 (2.1) |
| Norway | 85 (3.5) | 7 (2.5) | 7 (2.2) | 2 (1.3) | 1 (0.8) |
| Romania | 88 (3.1) | 25 (3.9) | 19 (3.8) | 22 (3.9) | 37 (4.4) |
| Russian Federation | 95 (1.8) | 28 (2.8) | 13 (2.2) | 19 (2.6) | 11 (2.0) |
| Scotland | 96 (2.0) | 68 (5.0) | 7 (2.8) | 8 (2.7) | 2 (1.2) |
| Singapore | 96 (1.5) | 97 (1.1) | 21 (3.4) | 6 (1.8) | 2 (1.1) |
| Slovak Republic | 91 (2.8) | 18 (3.3) | 9 (2.3) | 8 (2.3) | 5 (2.0) |
| Slovenia | 75 (2.9) | 10 (2.7) | 3 (1.5) | 29 (3.7) | 32 (3.7) |
| Sweden | 78 (4.0) | 23 (3.9) | 7 (2.1) | 12 (3.2) | 11 (3.0) |
| Turkey | 73 (3.9) | 34 (3.8) | 17 (3.4) | 23 (4.1) | 40 (4.7) |
| United States | 60 (4.5) | 63 (4.1) | 30 (3.6) | 7 (2.4) | 2 (1.3) |
| International Avg. | 80 (0.6) | 28 (0.6) | 12 (0.5) | 13 (0.5) | 14 (0.5) |

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

Background data provided by schools.

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

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

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

Exhibit 5.11: Instructional Time for Reading (Formal and Integrated)***ISC** 4th Grade
PIRLS 2001

| Countries | Total Hours of Instructional Time per Year | Percent of Total Instructional Time | | Average Hours Instruction per Week | |
|-----------------------|---|--|------------|---------------------------------------|-----------|
| | | Language | Reading | Language | Reading |
| Netherlands | r 1082 (5.7) | s 30 (1.0) | s 14 (1.0) | r 8 (0.2) | 4 (0.2) |
| Israel | s 1074 (24.9) | x x | x x | r 6 (0.3) | 6 (0.4) |
| Colombia | r 1073 (45.1) | r 29 (2.3) | r 28 (2.7) | 9 (0.8) | 8 (0.8) |
| United States | 1041 (11.3) | s 32 (1.2) | r 31 (1.6) | r 9 (0.4) | 9 (0.4) |
| Italy | 1038 (13.1) | 27 (0.6) | 17 (1.2) | 8 (0.2) | 5 (0.3) |
| Morocco | r 1011 (13.7) | s 21 (1.9) | s 19 (2.4) | r 6 (0.4) | r 5 (0.5) |
| Scotland | r 962 (4.0) | s 27 (0.9) | r 17 (1.2) | r 7 (0.2) | 4 (0.3) |
| England | r 958 (6.9) | r 29 (0.8) | r 15 (1.1) | 7 (0.2) | 4 (0.2) |
| New Zealand | 941 (4.7) | r 39 (1.3) | r 24 (1.2) | 9 (0.3) | 6 (0.3) |
| Singapore | 940 (0.0) | 25 (0.6) | 19 (1.4) | 7 (0.2) | 5 (0.4) |
| Belize | s 939 (24.7) | x x | x x | r 7 (0.5) | r 7 (0.5) |
| Canada (O,Q) | 931 (6.8) | r 36 (1.0) | r 26 (1.2) | 9 (0.2) | 6 (0.4) |
| ^a France | 910 (0.0) | x x | x x | r 9 (0.2) | 4 (0.3) |
| Sweden | r 860 (14.0) | s 31 (1.4) | r 19 (0.9) | r 7 (0.2) | 4 (0.2) |
| Cyprus | r 851 (10.3) | s 38 (0.9) | s 25 (2.0) | 9 (0.2) | 6 (0.4) |
| Kuwait | 823 (6.4) | s 29 (0.8) | s 18 (1.1) | s 7 (0.2) | s 4 (0.2) |
| Germany | r 812 (10.8) | s 34 (1.2) | s 18 (1.0) | r 7 (0.2) | r 4 (0.2) |
| Czech Republic | r 809 (16.3) | r 35 (1.4) | r 22 (1.4) | 7 (0.2) | 4 (0.3) |
| Turkey | 805 (17.8) | r 28 (1.0) | 26 (1.7) | r 6 (0.2) | 6 (0.3) |
| Greece | r 795 (11.3) | r 37 (1.1) | r 26 (1.9) | 9 (0.2) | 6 (0.4) |
| Slovak Republic | r 782 (12.3) | s 38 (1.2) | r 29 (1.4) | r 8 (0.2) | 7 (0.3) |
| Moldova, Rep. of | r 782 (24.5) | r 34 (1.4) | r 23 (1.0) | 7 (0.3) | 5 (0.2) |
| Iceland | r 749 (1.0) | s 27 (0.1) | s 17 (0.1) | r 6 (0.0) | r 4 (0.0) |
| Iran, Islamic Rep. of | r 724 (13.9) | r 24 (0.9) | r 38 (1.3) | 5 (0.2) | 8 (0.2) |
| Argentina | r 694 (12.3) | s 37 (2.1) | r 36 (2.9) | r 7 (0.3) | 7 (0.6) |
| Lithuania | r 689 (8.2) | r 36 (1.3) | r 35 (1.8) | 7 (0.2) | 7 (0.3) |
| Russian Federation | s 688 (10.5) | s 39 (1.1) | s 29 (1.3) | 8 (0.2) | 6 (0.2) |
| Norway | 682 (15.7) | r 46 (2.4) | r 32 (2.4) | 8 (0.4) | 6 (0.4) |
| Macedonia, Rep. of | 675 (8.9) | 17 (0.2) | 8 (0.2) | 3 (0.0) | 1 (0.0) |
| Latvia | r 666 (10.3) | r 36 (1.4) | r 28 (1.8) | 7 (0.3) | 6 (0.4) |
| Romania | 634 (8.3) | r 35 (1.1) | r 40 (1.6) | 6 (0.2) | 7 (0.3) |
| Bulgaria | 614 (10.9) | 39 (1.6) | 31 (1.3) | 7 (0.3) | 6 (0.2) |
| Slovenia | 602 (10.3) | r 37 (1.6) | r 22 (1.5) | 6 (0.3) | 4 (0.3) |
| Hong Kong, SAR | -- | -- | -- | r 5 (0.1) | r 3 (0.2) |
| Hungary | -- | -- | -- | 7 (0.2) | 6 (0.2) |
| International Avg. | 837 (2.6) | 32 (0.2) | 24 (0.3) | 7 (0.1) | 5 (0.1) |

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

*Total hours of instruction per year is based on principals' reports of the number of hours spent on instruction per year multiplied by the number of days per year the school is open for instruction. Average hours of language instruction per week is based on how much time teachers reported spending on language instruction and/or activities with the students in a typical week.

Average hours of reading instruction per week is based on how much time teachers reported spending on reading instruction in a typical week, formally scheduled and integrated (see Exhibits 5.12 and 5.13 for details of this item). The average weekly reading instructional time reported by teachers is averaged across students.

a Data provided by French Ministry of Education.

() 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.

How Much Instructional Time Is Devoted to Reading?

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

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

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

Exhibit 5.12: Number of Hours Reading is Taught Weekly (Formal and Integrated)ISC
4th Grade
PIRLS 2001

| Countries | More than 6 | | More than 3 up to and including 6 | | Up to and including 3 | |
|-----------------------|------------------------|------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 45 (4.7) | 402 (10.0) | 25 (4.0) | 432 (11.7) | 30 (4.3) | 437 (10.1) |
| Belize r | 36 (4.3) | 317 (10.8) | 47 (4.4) | 327 (7.2) | 17 (4.0) | 295 (13.7) |
| Bulgaria | 31 (3.4) | 541 (8.4) | 56 (3.9) | 552 (5.1) | 14 (2.8) | 558 (9.4) |
| Canada (O,Q) | 35 (3.5) | 547 (3.7) | 44 (3.4) | 545 (3.7) | 21 (3.1) | 542 (4.3) |
| Colombia | 40 (4.9) | 421 (6.7) | 33 (4.8) | 413 (8.7) | 27 (3.6) | 442 (10.0) |
| Cyprus | 36 (5.2) | 499 (4.6) | 23 (4.7) | 497 (6.1) | 42 (5.7) | 489 (5.4) |
| Czech Republic | 18 (3.5) | 536 (5.6) | 35 (4.1) | 542 (4.0) | 46 (4.7) | 533 (3.5) |
| England | 13 (3.2) | 532 (11.5) | 34 (4.4) | 557 (7.1) | 53 (4.2) | 561 (4.6) |
| France | 11 (2.7) | 529 (8.9) | 40 (4.7) | 528 (3.8) | 49 (5.2) | 522 (3.8) |
| Germany r | 12 (2.4) | 530 (8.7) | 28 (3.2) | 537 (3.5) | 60 (3.3) | 542 (2.9) |
| Greece | 36 (4.3) | 522 (6.0) | 26 (4.3) | 537 (7.2) | 37 (4.9) | 524 (5.7) |
| Hong Kong, SAR r | 3 (1.7) | 513 (28.4) | 21 (3.9) | 536 (7.6) | 76 (4.1) | 528 (4.3) |
| Hungary | 30 (3.5) | 547 (5.3) | 52 (3.8) | 542 (3.3) | 18 (3.4) | 549 (7.8) |
| Iceland r | 9 (0.2) | 508 (3.2) | 42 (0.4) | 511 (1.8) | 48 (0.4) | 518 (1.9) |
| Iran, Islamic Rep. of | 70 (4.4) | 415 (5.0) | 30 (4.4) | 409 (9.8) | 0 (0.0) | ~ ~ |
| Israel r | 29 (4.2) | 522 (8.1) | 35 (4.4) | 510 (8.0) | 36 (4.4) | 487 (8.4) |
| Italy | 19 (3.1) | 533 (6.4) | 36 (3.7) | 541 (3.9) | 45 (3.8) | 544 (3.9) |
| Kuwait s | 18 (3.0) | 397 (13.7) | 36 (4.3) | 399 (9.3) | 46 (4.9) | 400 (7.7) |
| Latvia | 29 (4.1) | 548 (4.2) | 50 (5.0) | 539 (3.4) | 21 (3.9) | 553 (6.4) |
| Lithuania | 46 (4.4) | 542 (4.0) | 33 (4.2) | 543 (5.9) | 21 (3.7) | 549 (5.1) |
| Macedonia, Rep. of | 0 (0.0) | ~ ~ | 0 (0.0) | ~ ~ | 100 (0.0) | 443 (4.4) |
| Moldova, Rep. of | 26 (3.7) | 489 (6.9) | 42 (4.5) | 486 (6.6) | 31 (3.8) | 495 (9.2) |
| Morocco r | 26 (4.8) | 344 (17.1) | 22 (4.2) | 350 (18.0) | 52 (5.4) | 341 (12.0) |
| Netherlands | 5 (1.9) | 535 (11.7) | 47 (4.8) | 556 (3.8) | 49 (4.8) | 553 (3.9) |
| New Zealand | 27 (4.1) | 526 (8.2) | 55 (4.5) | 534 (4.8) | 18 (3.5) | 518 (11.1) |
| Norway | 33 (4.8) | 496 (5.4) | 35 (4.5) | 500 (4.7) | 32 (4.5) | 499 (5.8) |
| Romania | 63 (4.1) | 523 (6.3) | 26 (3.7) | 492 (8.0) | 11 (2.8) | 503 (14.8) |
| Russian Federation | 29 (3.3) | 526 (6.4) | 59 (3.4) | 530 (5.0) | 12 (2.4) | 518 (11.1) |
| Scotland | 13 (3.3) | 518 (12.2) | 41 (4.9) | 522 (6.3) | 46 (4.8) | 536 (5.4) |
| Singapore | 25 (3.3) | 521 (9.2) | 17 (2.3) | 513 (12.1) | 58 (3.7) | 538 (7.4) |
| Slovak Republic | 35 (3.7) | 519 (5.0) | 51 (4.2) | 520 (4.6) | 13 (2.9) | 512 (8.4) |
| Slovenia | 13 (3.1) | 503 (6.3) | 26 (3.8) | 499 (5.3) | 61 (4.4) | 501 (2.6) |
| Sweden | 16 (2.6) | 565 (6.1) | 32 (2.9) | 557 (3.7) | 51 (3.4) | 564 (2.7) |
| Turkey | 30 (4.1) | 448 (7.0) | 31 (4.3) | 450 (6.8) | 39 (4.6) | 448 (7.6) |
| United States | 65 (4.9) | 540 (4.2) | 28 (4.3) | 543 (8.5) | 7 (2.2) | 537 (19.0) |
| International Avg. | 28 (0.6) | 499 (1.6) | 35 (0.7) | 501 (1.2) | 37 (0.7) | 502 (1.4) |

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

Background data provided by teachers.

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

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

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

Exhibit 5.13: Teachers Spend Time for Formal Reading Instruction**ISC** 4th Grade
PIRLS 2001

| Countries | Yes | | No | | Average Hours of Formal Instruction per Week |
|-----------------------|---------------------|---------------------|---------------------|---------------------|--|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Argentina | 86 (3.5) | 419 (6.1) | 14 (3.5) | 421 (23.2) | 3.4 (0.34) |
| Belize | 86 (4.2) | 326 (6.8) | 14 (4.2) | 317 (10.9) | 4.4 (0.88) |
| Bulgaria | 93 (2.2) | 551 (4.0) | 7 (2.2) | 554 (16.9) | 2.9 (0.07) |
| Canada (O,Q) | 85 (2.6) | 547 (2.3) | 15 (2.6) | 532 (7.5) | 2.7 (0.13) |
| Colombia | 96 (2.1) | 420 (4.7) | 4 (2.1) | 458 (5.1) | 4.9 (0.48) |
| Cyprus | 77 (4.6) | 493 (3.4) | 23 (4.6) | 498 (6.4) | 3.5 (0.48) |
| Czech Republic | 98 (1.3) | 537 (2.4) | 2 (1.3) | ~ ~ | 1.7 (0.06) |
| England | 88 (3.1) | 552 (3.9) | 12 (3.1) | 569 (8.6) | 1.8 (0.10) |
| France | 93 (2.0) | 526 (2.3) | 7 (2.0) | 521 (13.6) | 1.7 (0.11) |
| Germany | 73 (3.0) | 540 (2.5) | 27 (3.0) | 541 (3.7) | 1.2 (0.07) |
| Greece | 88 (2.9) | 526 (3.8) | 12 (2.9) | 535 (10.6) | 2.9 (0.21) |
| Hong Kong, SAR | 59 (4.8) | 526 (4.0) | 41 (4.8) | 532 (5.1) | 1.4 (0.15) |
| Hungary | 99 (0.6) | 544 (2.2) | 1 (0.0) | ~ ~ | 2.6 (0.13) |
| Iceland | 86 (0.3) | 514 (1.3) | 14 (0.3) | 507 (4.1) | 2.1 (0.01) |
| Iran, Islamic Rep. of | 100 (0.0) | 415 (4.4) | 0 (0.0) | ~ ~ | 2.6 (0.09) |
| Israel | 82 (3.6) | 508 (4.7) | 18 (3.6) | 493 (10.3) | 3.0 (0.24) |
| Italy | 93 (2.0) | 539 (2.5) | 7 (2.0) | 555 (10.1) | 2.8 (0.20) |
| Kuwait | 72 (3.7) | 406 (7.1) | 28 (3.7) | 392 (8.0) | x x |
| Latvia | 79 (3.6) | 544 (2.6) | 21 (3.6) | 551 (5.6) | 2.2 (0.13) |
| Lithuania | 72 (4.2) | 543 (3.2) | 28 (4.2) | 547 (6.0) | 2.5 (0.15) |
| Macedonia, Rep. of | 87 (3.1) | 438 (5.3) | 13 (3.1) | 469 (13.7) | 1.5 (0.03) |
| Moldova, Rep. of | 86 (2.9) | 493 (5.1) | 14 (2.9) | 466 (8.8) | 5.0 (0.63) |
| Morocco | 90 (2.9) | 344 (9.6) | 10 (2.9) | 355 (25.7) | 2.7 (0.31) |
| Netherlands | 96 (2.0) | 554 (2.8) | 4 (2.0) | 559 (7.0) | 1.4 (0.07) |
| New Zealand | 98 (1.0) | 529 (3.7) | 2 (1.0) | ~ ~ | 2.8 (0.13) |
| Norway | 82 (3.5) | 500 (3.1) | 18 (3.5) | 499 (7.6) | 2.3 (0.18) |
| Romania | 95 (1.8) | 511 (4.6) | 5 (1.8) | 529 (24.5) | 3.3 (0.21) |
| Russian Federation | 67 (3.9) | 527 (6.0) | 33 (3.9) | 530 (5.0) | 3.3 (0.11) |
| Scotland | 88 (2.9) | 527 (4.1) | 12 (2.9) | 536 (10.3) | 2.3 (0.16) |
| Singapore | 79 (3.2) | 532 (6.2) | 21 (3.2) | 508 (12.0) | 2.1 (0.15) |
| Slovak Republic | 86 (2.7) | 517 (3.1) | 14 (2.7) | 529 (4.3) | 3.4 (0.09) |
| Slovenia | 51 (4.0) | 498 (3.3) | 49 (4.0) | 505 (2.8) | 1.8 (0.16) |
| Sweden | 83 (2.8) | 560 (2.5) | 17 (2.8) | 565 (4.2) | 1.8 (0.10) |
| Turkey | 73 (3.8) | 449 (4.6) | 27 (3.8) | 451 (7.4) | 3.3 (0.20) |
| United States | 99 (0.6) | 542 (3.8) | 1 (0.6) | ~ ~ | 4.5 (0.23) |
| International Avg. | 85 (0.5) | 500 (0.7) | 15 (0.5) | 501 (2.1) | 2.7 (0.05) |

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

Background data provided by teachers.

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

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

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

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

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

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

How Are Classes Organized for Reading Instruction?

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

Exhibit 5.14: Frequency of Reading Instruction During the Week
ISC 4th Grade
PIRLS 2001

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

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

Background data provided by teachers.

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

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

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

Exhibit 5.15: Schools' Reading Instructional Programs**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Schools Reported Various Instructional Programs | | |
|-----------------------|--|--|--|
| | Same Instructional Program at Different Speeds | Same Instructional Program at Same Speed | Different Instructional Programs at Different Levels |
| Argentina | 67 (4.6) | 5 (2.1) | 28 (4.4) |
| Belize | 47 (5.2) | 17 (5.9) | 36 (5.8) |
| Bulgaria | 74 (3.3) | 24 (3.2) | 2 (1.0) |
| Canada (O,Q) | 33 (3.1) | 9 (1.5) | 58 (3.0) |
| Colombia | 72 (4.8) | 11 (3.0) | 18 (3.9) |
| Cyprus | 80 (4.4) | 11 (3.1) | 9 (3.2) |
| Czech Republic | 90 (2.8) | 9 (2.7) | 1 (0.0) |
| England | 37 (4.4) | 0 (0.0) | 63 (4.4) |
| France | 80 (3.8) | 6 (2.4) | 14 (2.9) |
| Germany | 73 (3.8) | 3 (1.2) | 24 (3.6) |
| Greece | 69 (4.6) | 22 (3.7) | 9 (3.2) |
| Hong Kong, SAR | 45 (4.5) | 38 (4.1) | 16 (3.3) |
| Hungary | 84 (3.0) | 9 (2.4) | 7 (1.8) |
| Iceland ^r | 30 (0.3) | 0 (0.0) | 70 (0.3) |
| Iran, Islamic Rep. of | 32 (4.6) | 24 (3.3) | 45 (4.7) |
| Israel | 43 (4.4) | 5 (1.7) | 52 (4.6) |
| Italy | 73 (3.3) | 6 (1.9) | 21 (3.3) |
| Kuwait | 37 (4.9) | 11 (2.6) | 51 (4.6) |
| Latvia | 77 (3.4) | 18 (3.4) | 4 (1.8) |
| Lithuania | 78 (3.1) | 6 (1.7) | 16 (2.9) |
| Macedonia, Rep. of | 64 (4.3) | 26 (3.9) | 10 (2.9) |
| Moldova, Rep. of | 78 (3.6) | 8 (2.4) | 13 (3.1) |
| Morocco | 43 (4.8) | 15 (3.7) | 42 (4.5) |
| Netherlands | 59 (4.9) | 9 (2.0) | 32 (4.7) |
| New Zealand | 18 (3.6) | 0 (0.0) | 82 (3.6) |
| Norway | 53 (5.2) | 7 (2.0) | 41 (5.0) |
| Romania | 63 (4.4) | 9 (2.5) | 28 (4.1) |
| Russian Federation | 72 (3.7) | 24 (3.2) | 4 (1.5) |
| Scotland | 58 (4.8) | 1 (1.0) | 41 (4.9) |
| Singapore | 64 (4.0) | 6 (1.9) | 30 (3.6) |
| Slovak Republic | 58 (4.8) | 22 (4.0) | 19 (3.3) |
| Slovenia | 76 (3.5) | 2 (1.4) | 22 (3.2) |
| Sweden | 41 (4.5) | 1 (1.3) | 58 (4.3) |
| Turkey | 69 (3.8) | 19 (3.4) | 12 (2.9) |
| United States | 56 (4.3) | 14 (3.4) | 31 (4.2) |
| International Avg. | 60 (0.7) | 11 (0.5) | 29 (0.6) |

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

Background data provided by schools.

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

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

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

Exhibit 5.16: Teachers' Reports of Their Students' Reading Level**ISC** 4th Grade
PIRLS 2001

| Countries | Above Average | | Average | | Below Average | | Level Varies Greatly | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 4 (1.5) | 473 (21.5) | 47 (5.3) | 430 (7.4) | 14 (3.4) | 386 (19.7) | 34 (4.9) | 410 (11.9) |
| Belize | 4 (1.1) | 366 (15.4) | 47 (5.4) | 328 (11.3) | 23 (3.8) | 293 (15.6) | 26 (3.8) | 330 (8.8) |
| Bulgaria | 45 (3.4) | 573 (4.6) | 41 (3.8) | 535 (5.5) | 5 (1.9) | 496 (32.6) | 9 (2.2) | 539 (17.1) |
| Canada (O,Q) | 3 (1.0) | 580 (6.4) | 59 (3.3) | 550 (3.1) | 16 (2.5) | 524 (5.8) | 22 (2.8) | 541 (4.4) |
| Colombia | 5 (1.8) | 431 (13.8) | 46 (4.9) | 423 (8.1) | 12 (2.9) | 406 (15.7) | 37 (4.8) | 426 (6.3) |
| Cyprus | 47 (4.7) | 506 (4.1) | 41 (5.1) | 482 (4.0) | 1 (0.6) | ~ ~ | 12 (2.8) | 490 (7.0) |
| Czech Republic | 6 (2.1) | 553 (9.9) | 73 (3.7) | 538 (2.6) | 0 (0.0) | ~ ~ | 20 (3.3) | 527 (5.8) |
| England | 19 (4.0) | 595 (6.5) | 52 (4.8) | 553 (3.3) | 11 (3.0) | 503 (12.2) | 19 (3.8) | 545 (6.9) |
| France | 14 (2.3) | 554 (5.5) | 65 (3.6) | 527 (2.5) | 4 (1.2) | 485 (9.8) | 17 (3.0) | 505 (6.7) |
| Germany | 14 (2.4) | 561 (3.8) | 51 (3.3) | 543 (2.6) | 7 (1.7) | 504 (10.2) | 29 (2.6) | 533 (3.7) |
| Greece | 49 (4.4) | 539 (5.9) | 27 (3.5) | 513 (6.1) | 2 (1.0) | ~ ~ | 22 (3.5) | 509 (6.7) |
| Hong Kong, SAR | 8 (2.4) | 557 (7.4) | 62 (4.4) | 537 (3.4) | 15 (3.0) | 499 (9.5) | 15 (2.9) | 508 (7.1) |
| Hungary | 2 (1.1) | ~ ~ | 72 (3.5) | 548 (2.8) | 2 (1.0) | ~ ~ | 24 (3.2) | 532 (5.0) |
| Iceland | 26 (0.3) | 523 (2.3) | 45 (0.4) | 512 (1.9) | 1 (0.1) | ~ ~ | 28 (0.4) | 507 (2.3) |
| Iran, Islamic Rep. of | 39 (4.4) | 427 (6.4) | 47 (4.2) | 409 (6.3) | 6 (3.1) | 350 (16.5) | 8 (2.2) | 414 (13.0) |
| Israel | 18 (3.3) | 504 (13.6) | 54 (4.8) | 522 (6.0) | 6 (1.8) | 437 (22.0) | 22 (4.1) | 504 (11.5) |
| Italy | 8 (2.1) | 539 (8.0) | 82 (2.8) | 543 (2.6) | 2 (1.1) | ~ ~ | 8 (1.9) | 519 (14.9) |
| Kuwait | 21 (3.1) | 406 (9.0) | 57 (3.7) | 407 (5.7) | 6 (1.8) | 398 (19.5) | 15 (2.4) | 367 (10.7) |
| Latvia | 34 (4.8) | 557 (4.3) | 39 (4.4) | 540 (3.8) | 0 (0.0) | ~ ~ | 26 (4.3) | 537 (5.4) |
| Lithuania | 23 (3.6) | 560 (5.1) | 39 (4.1) | 536 (4.0) | 2 (1.1) | ~ ~ | 36 (4.3) | 542 (4.3) |
| Macedonia, Rep. of | 17 (3.2) | 444 (13.0) | 81 (3.2) | 446 (5.5) | 1 (0.8) | ~ ~ | 1 (0.8) | ~ ~ |
| Moldova, Rep. of | 12 (2.9) | 501 (8.9) | 76 (3.8) | 495 (5.5) | 8 (2.3) | 470 (13.7) | 4 (1.9) | 486 (23.1) |
| Morocco | 20 (3.4) | 359 (18.4) | 51 (5.2) | 351 (13.0) | 13 (3.5) | 294 (17.1) | 16 (4.1) | 348 (20.2) |
| Netherlands | 16 (3.2) | 568 (4.4) | 61 (4.3) | 556 (2.8) | 6 (2.2) | 520 (14.8) | 17 (3.3) | 546 (6.1) |
| New Zealand | 30 (4.0) | 562 (6.7) | 46 (4.5) | 514 (4.9) | 5 (1.5) | 489 (11.1) | 19 (3.6) | 517 (9.1) |
| Norway | 9 (1.7) | 520 (11.8) | 72 (3.9) | 498 (3.8) | 1 (0.6) | ~ ~ | 19 (3.5) | 494 (4.5) |
| Romania | 36 (4.9) | 533 (8.5) | 58 (4.9) | 502 (5.2) | 0 (0.0) | ~ ~ | 6 (2.2) | 480 (23.0) |
| Russian Federation | 16 (2.2) | 540 (6.6) | 52 (3.4) | 529 (5.9) | 2 (0.9) | ~ ~ | 30 (3.3) | 522 (7.5) |
| Scotland | 10 (2.7) | 573 (8.1) | 65 (4.7) | 526 (4.4) | 4 (1.8) | 481 (20.0) | 22 (4.1) | 524 (10.0) |
| Singapore | 20 (3.3) | 609 (5.4) | 61 (4.0) | 528 (3.9) | 12 (2.3) | 424 (20.1) | 7 (1.9) | 476 (11.3) |
| Slovak Republic | 12 (2.7) | 542 (8.0) | 71 (4.0) | 519 (3.4) | 1 (0.7) | ~ ~ | 17 (3.1) | 500 (10.5) |
| Slovenia | 4 (1.7) | 511 (6.1) | 70 (3.4) | 504 (2.7) | 1 (0.5) | ~ ~ | 25 (3.6) | 492 (3.9) |
| Sweden | 11 (1.9) | 585 (4.8) | 59 (3.8) | 562 (2.9) | 6 (1.4) | 536 (9.7) | 24 (3.2) | 555 (3.8) |
| Turkey | 40 (4.6) | 471 (6.5) | 43 (4.0) | 439 (5.1) | 5 (2.0) | 402 (20.0) | 12 (2.8) | 431 (11.1) |
| United States | 6 (1.6) | 594 (11.6) | 64 (4.6) | 556 (4.2) | 17 (3.5) | 490 (7.9) | 13 (3.1) | 524 (9.8) |
| International Avg. | 18 (0.5) | 521 (1.6) | 56 (0.7) | 500 (0.9) | 6 (0.3) | 447 (4.5) | 19 (0.5) | 491 (2.0) |

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

Background data provided by teachers.

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

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

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

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

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

As shown in Exhibit 5.17, on average, internationally, about half the students (56%) were in classrooms where all students were reading the same materials but at their own speeds and another one-third (32%) were reading different materials according to their reading levels. Hong Kong is the only country where a substantial percentage of the students – 38 percent – used the same materials at the same speed regardless of their reading levels.

When teaching language to their fourth-grade students, the preferred approach of the PIRLS teachers was to combine the teaching of language as a separate subject with doing reading instruction or language activities as part of teaching other curricular areas. Exhibit 5.18 shows that, on average, 58 percent of students were in schools combining the separate and integrated approaches, compared with 21 percent in schools doing language instruction as part of instruction in other curricular areas, and 20 percent where language was taught as a separate subject.

Exhibit 5.17: Use of Instructional Materials for Students at Different Reading Levels**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported Using | | | |
|-----------------------|---|---|---|---|
| | Same Materials with Students Because They Are All at the Same Reading Level | Same Materials with Students at Different Reading Levels, Where Students Work at Different Speeds | Same Materials with Students at Different Reading Levels, Where Students Work at Same Speed | Different Materials with Students at Different Reading Levels |
| Argentina | 5 (1.8) | 74 (4.4) | 5 (2.2) | 16 (3.7) |
| Belize | 4 (2.4) | 64 (4.4) | 10 (3.0) | 22 (3.0) |
| Bulgaria | 8 (2.2) | 59 (3.6) | 3 (1.3) | 31 (3.6) |
| Canada (O,Q) | 6 (1.2) | 56 (3.4) | 9 (1.9) | 30 (3.4) |
| Colombia | 10 (3.7) | 66 (4.3) | 4 (1.6) | 19 (3.1) |
| Cyprus | 4 (1.9) | 84 (4.1) | 1 (1.0) | 11 (3.5) |
| Czech Republic | 2 (1.3) | 86 (3.1) | 3 (1.4) | 9 (2.6) |
| England | 0 (0.0) | 30 (4.2) | 1 (0.9) | 69 (4.4) |
| France | 5 (1.7) | 74 (3.7) | 6 (1.9) | 15 (3.1) |
| Germany | 3 (1.1) | 77 (2.3) | 5 (1.3) | 15 (2.1) |
| Greece | 2 (1.2) | 85 (2.7) | 3 (1.3) | 10 (2.3) |
| Hong Kong, SAR | 18 (3.2) | 35 (4.1) | 38 (4.5) | 9 (2.8) |
| Hungary | 1 (0.9) | 91 (2.4) | 1 (0.9) | 7 (2.0) |
| Iceland | 3 (0.1) | 31 (0.3) | 4 (0.1) | 62 (0.3) |
| Iran, Islamic Rep. of | 8 (2.3) | 33 (4.1) | 9 (3.2) | 49 (4.4) |
| Israel | 7 (2.3) | 53 (4.4) | 3 (1.5) | 36 (4.5) |
| Italy | 8 (2.0) | 54 (3.8) | 7 (1.9) | 31 (4.1) |
| Kuwait | 2 (0.8) | 36 (4.3) | 5 (1.9) | 57 (4.2) |
| Latvia | 3 (1.3) | 72 (4.2) | 5 (1.8) | 20 (3.9) |
| Lithuania | 2 (1.4) | 76 (3.5) | 3 (1.4) | 19 (3.0) |
| Macedonia, Rep. of | 10 (2.6) | 55 (4.3) | 13 (3.4) | 22 (3.8) |
| Moldova, Rep. of | 1 (0.9) | 51 (4.4) | 4 (2.7) | 43 (4.5) |
| Morocco | 8 (2.5) | 38 (5.3) | 12 (3.6) | 41 (5.3) |
| Netherlands | 2 (1.3) | 52 (4.0) | 6 (2.0) | 40 (4.3) |
| New Zealand | 1 (0.5) | 5 (1.6) | 0 (0.0) | 95 (1.6) |
| Norway | 1 (0.0) | 50 (4.8) | 1 (0.8) | 48 (4.8) |
| Romania | 10 (2.6) | 52 (4.9) | 6 (2.6) | 32 (3.8) |
| Russian Federation | 4 (1.2) | 84 (2.7) | 5 (1.6) | 7 (1.8) |
| Scotland | 3 (1.6) | 8 (2.6) | 0 (0.0) | 89 (2.5) |
| Singapore | 18 (3.1) | 61 (3.8) | 12 (2.8) | 9 (2.3) |
| Slovak Republic | 6 (1.6) | 73 (3.5) | 3 (1.3) | 19 (3.3) |
| Slovenia | 11 (2.7) | 65 (4.1) | 2 (1.0) | 22 (3.6) |
| Sweden | 2 (0.9) | 32 (2.3) | 1 (0.6) | 65 (2.4) |
| Turkey | 10 (2.4) | 51 (4.3) | 5 (1.6) | 34 (4.0) |
| United States | 7 (2.4) | 57 (3.8) | 6 (2.2) | 30 (3.8) |
| International Avg. | 6 (0.3) | 56 (0.6) | 6 (0.3) | 32 (0.6) |

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

Background data provided by teachers.

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

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

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

Exhibit 5.18: Teachers Teach Reading Across Curriculum Areas or Separately**ISC** 4th Grade
PIRLS 2001

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

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

Background data provided by teachers.

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

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

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

Exhibit 5.19: Organization of Students for Reading Instruction**ISC****4th Grade**
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported Always or Almost Always | | | | | |
|-----------------------|--|------------------------------|-------------------------------|---|----------------------------------|---|
| | Teaching Reading as Whole-Class Activity | Creating Same-Ability Groups | Creating Mixed-Ability Groups | Creating Groups Based on Other Criteria | Using Individualized Instruction | Using a Variety of Organizational Approaches* |
| Argentina | 58 (4.5) | 7 (2.4) | 27 (4.2) | r 8 (2.9) | 18 (3.4) | 23 (4.3) |
| Belize | r 33 (6.3) | r 12 (4.2) | r 20 (5.5) | r 6 (2.7) | r 6 (2.2) | r 49 (7.2) |
| Bulgaria | 77 (3.4) | 1 (0.8) | 1 (0.8) | 3 (1.5) | 24 (3.2) | 19 (3.1) |
| Canada (O,Q) | 27 (2.8) | 7 (1.9) | 3 (1.0) | 1 (1.0) | 7 (2.2) | 64 (3.3) |
| Colombia | 40 (4.5) | 3 (1.6) | 13 (3.2) | 5 (1.8) | 21 (4.0) | 45 (4.9) |
| Cyprus | 32 (4.2) | r 1 (0.0) | 28 (4.8) | r 3 (2.1) | 12 (2.4) | 47 (5.7) |
| Czech Republic | 38 (4.0) | 2 (1.4) | x x | 1 (0.9) | 8 (2.7) | 40 (4.4) |
| England | 25 (3.9) | 27 (4.3) | 3 (1.6) | r 3 (1.6) | 3 (1.6) | 60 (4.7) |
| France | 26 (3.3) | 5 (1.4) | 3 (1.4) | 1 (0.7) | 3 (1.6) | 68 (4.0) |
| Germany | 30 (3.2) | 1 (0.6) | 1 (0.4) | r 1 (0.7) | 7 (1.6) | 66 (3.4) |
| Greece | 71 (4.8) | 0 (0.0) | 6 (1.7) | 0 (0.0) | 10 (3.4) | 19 (3.7) |
| Hong Kong, SAR | 73 (3.3) | 1 (0.0) | 11 (2.6) | 9 (2.2) | 6 (2.0) | 22 (3.3) |
| Hungary | 11 (2.3) | 6 (1.7) | r 1 (0.0) | r 0 (0.0) | r 2 (1.2) | r 85 (3.1) |
| Iceland | 30 (0.3) | r 7 (0.2) | r 5 (0.2) | r 2 (0.0) | 20 (0.4) | r 54 (0.4) |
| Iran, Islamic Rep. of | 54 (4.0) | 9 (2.3) | 19 (3.4) | 12 (2.1) | 16 (3.2) | 29 (3.3) |
| Israel | 25 (3.7) | 8 (2.6) | 10 (3.0) | r 3 (1.6) | r 3 (1.3) | r 61 (4.5) |
| Italy | 57 (3.4) | 2 (1.3) | 6 (1.8) | 2 (1.0) | 8 (2.3) | 40 (3.5) |
| Kuwait | r 43 (4.0) | r 8 (1.8) | r 14 (2.8) | r 7 (1.8) | 46 (3.6) | r 24 (3.3) |
| Latvia | 58 (4.1) | 2 (1.4) | 4 (1.6) | 0 (0.0) | 6 (1.9) | 39 (4.1) |
| Lithuania | 28 (3.9) | 4 (1.7) | 6 (2.2) | 1 (1.0) | 7 (1.9) | 62 (4.3) |
| Macedonia, Rep. of | 42 (4.6) | 6 (2.1) | 12 (2.9) | r 6 (2.2) | 22 (3.6) | 44 (4.6) |
| Moldova, Rep. of | 54 (4.0) | 5 (1.7) | 7 (2.2) | 2 (1.1) | 13 (2.9) | 37 (4.1) |
| Morocco | 62 (4.7) | r 10 (3.1) | r 18 (4.3) | r 3 (2.0) | r 43 (5.5) | r 20 (4.3) |
| Netherlands | 15 (3.0) | r 7 (2.6) | r 8 (2.9) | r 5 (1.9) | r 5 (2.0) | r 71 (3.9) |
| New Zealand | 2 (1.1) | 53 (4.4) | 2 (1.1) | 0 (0.0) | 2 (1.1) | 46 (4.5) |
| Norway | 15 (3.0) | 3 (1.4) | 3 (1.7) | 3 (1.6) | 11 (2.5) | 73 (4.0) |
| Romania | 80 (3.0) | 4 (1.9) | 4 (1.7) | 1 (0.8) | 29 (3.8) | 16 (2.9) |
| Russian Federation | 71 (3.5) | 4 (1.6) | 13 (2.4) | 2 (1.0) | 23 (2.9) | 21 (2.9) |
| Scotland | 1 (1.1) | 66 (5.0) | 1 (0.9) | 0 (0.0) | 6 (2.5) | 32 (5.0) |
| Singapore | 33 (3.8) | 3 (1.0) | 11 (2.8) | 4 (1.6) | 3 (1.1) | 53 (4.1) |
| Slovak Republic | 40 (4.1) | 1 (0.7) | 6 (2.2) | 1 (0.7) | 6 (1.8) | 49 (4.3) |
| Slovenia | 8 (2.3) | 0 (0.0) | 4 (1.6) | 1 (0.8) | 6 (2.2) | 84 (3.3) |
| Sweden | 15 (2.5) | 6 (1.6) | 6 (1.9) | 4 (1.1) | 7 (2.2) | 71 (3.1) |
| Turkey | 26 (3.7) | 15 (3.7) | 10 (2.5) | 4 (1.7) | 25 (4.1) | 42 (4.1) |
| United States | 43 (4.0) | 17 (3.9) | 8 (1.8) | 2 (0.9) | 6 (2.3) | 44 (4.7) |
| International Avg. | 38 (0.6) | 9 (0.4) | 9 (0.4) | 3 (0.2) | 13 (0.5) | 46 (0.7) |

*Based on the proportion of teachers who did not respond “Always or Almost Always” to any of the approaches.

Background data provided by teachers.

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

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

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

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

Exhibit 5.19 presents teachers' reports of how they grouped their fourth-grade students for reading instruction or reading activities. Teaching reading as a whole-class activity was the most popular approach, with 38 percent of students, on average, in classes where the teacher always or almost always chose this method. The whole-class approach was particularly common in Bulgaria, Greece, Hong Kong, Romania, and the Russian Federation, where more than 70 percent of students were taught by teachers preferring this strategy. Creating groups on the basis of the same ability, mixed ability, or indeed any other basis were less frequent occurrences, although in New Zealand and Scotland the majority of students were taught by teachers that always created same-ability groups for reading instruction. Although teaching the whole class was the most usual single organizational approach to teaching reading, in many countries teachers reported that they used different grouping strategies at different times. For example, in 13 countries (Canada (O,Q), England, France, Germany, Hungary, Iceland, Israel, Lithuania, The Netherlands, Norway, Singapore, Slovenia, and Sweden) the majority of students were taught by teachers using a variety of grouping arrangements.

How Big Are Classes for Reading and Language Instruction?

The number of students in the class can have a significant impact on how teachers arrange students for reading instruction and on the teaching strategies they adopt. Exhibit 5.20 presents teachers' reports on the size of their fourth-grade class for reading and language instruction.² Across all PIRLS countries the average class size was 26 students, with the majority of students (54%) in classes with between 21 and 30 students. However, there was considerable variation around this average. In Greece, Iceland, Italy, and Norway, 50 percent or more of students were in classes with no more than 20 students, while in Colombia, Hong Kong, Israel, Morocco, Singapore, and Turkey, the majority of student were in classes containing 31 or more students. The relationship between class size and reading achievement is difficult to interpret and is complicated by the fact that small classes are sometimes used both for remedial students and for students receiving advanced instruction.

2 Class size was taken to be the total number of students in the class. For multi-grade classes (classes with students from more than one grade level) this included students from other grades. There was little difference in most countries between the size of entire classes and classes counting only fourth-graders. Compared to 26 for the average class size for entire classes (see Exhibit 5.20), the average number of fourth-grade students in classrooms across countries was 24.

Exhibit 5.20: Class Size for Reading and Language Instruction***ISC** 4th Grade
PIRLS 2001

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

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

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

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

Background data provided by teachers.

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

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

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

Exhibit 5.21: Average Number of Students in Class Needing Special Instruction**ISC** 4th Grade
PIRLS 2001

| Countries | Experience Difficulties Understanding Spoken Language | Need Remedial Instruction in Reading | Receive Remedial Instruction When Needed | Receive Enrichment Reading Instruction |
|-----------------------|---|--------------------------------------|--|--|
| Argentina | 6 (0.6) | r 8 (0.6) | s 6 (0.6) | s 5 (0.7) |
| Belize | r 6 (0.6) | r 11 (0.6) | s 5 (0.7) | r 7 (0.9) |
| Bulgaria | 2 (0.4) | 4 (0.5) | 3 (0.2) | 3 (0.4) |
| Canada (O,Q) | 1 (0.2) | 5 (0.2) | 3 (0.2) | 1 (0.1) |
| Colombia | s 5 (0.5) | 8 (0.6) | s 5 (0.5) | x x |
| Cyprus | 3 (0.4) | 4 (0.2) | 2 (0.2) | 1 (0.4) |
| Czech Republic | 1 (0.1) | 3 (0.2) | 2 (0.2) | 2 (0.4) |
| England | 1 (0.2) | 5 (0.3) | 4 (0.3) | r 1 (0.3) |
| France | 1 (0.1) | 3 (0.2) | 1 (0.1) | 2 (0.2) |
| Germany | 1 (0.2) | 4 (0.2) | 2 (0.2) | 1 (0.2) |
| Greece | 3 (0.2) | 3 (0.2) | 1 (0.1) | 0 (0.2) |
| Hong Kong, SAR | 1 (0.2) | 4 (0.5) | 1 (0.3) | 1 (0.2) |
| Hungary | 1 (0.2) | 4 (0.2) | 3 (0.2) | 2 (0.3) |
| Iceland | 1 (0.0) | 3 (0.0) | 3 (0.0) | 0 (0.0) |
| Iran, Islamic Rep. of | 5 (0.3) | 5 (0.3) | 3 (0.2) | 9 (0.7) |
| Israel | s 4 (0.4) | r 5 (0.2) | r 3 (0.2) | x x |
| Italy | 2 (0.2) | 2 (0.2) | 2 (0.2) | 2 (0.3) |
| Kuwait | r 5 (0.4) | — | — | — |
| Latvia | s 2 (0.4) | 4 (0.2) | s 3 (0.3) | s 4 (0.8) |
| Lithuania | r 2 (0.2) | r 3 (0.3) | r 2 (0.2) | s 3 (0.6) |
| Macedonia, Rep. of | r 2 (0.3) | 5 (0.5) | r 4 (0.3) | r 9 (0.6) |
| Moldova, Rep. of | r 3 (0.4) | r 5 (0.3) | r 3 (0.3) | r 7 (0.3) |
| Morocco | r 9 (0.9) | s 10 (1.0) | s 6 (1.1) | r 8 (0.8) |
| Netherlands | 1 (0.1) | 3 (0.2) | 3 (0.2) | 4 (0.7) |
| New Zealand | 1 (0.1) | 3 (0.2) | 2 (0.2) | 2 (0.3) |
| Norway | 1 (0.2) | 3 (0.2) | 2 (0.1) | 1 (0.2) |
| Romania | 1 (0.3) | 3 (0.2) | 2 (0.2) | 5 (0.4) |
| Russian Federation | 1 (0.2) | 4 (0.3) | 3 (0.3) | 1 (0.3) |
| Scotland | 0 (0.1) | 3 (0.2) | 3 (0.2) | 0 (0.1) |
| Singapore | 3 (0.4) | 5 (0.5) | 3 (0.4) | 2 (0.4) |
| Slovak Republic | 1 (0.2) | 10 (0.4) | 8 (0.4) | 7 (0.5) |
| Slovenia | 2 (0.2) | 3 (0.2) | 3 (0.2) | 4 (0.4) |
| Sweden | 1 (0.1) | 4 (0.2) | 3 (0.2) | 3 (0.4) |
| Turkey | 2 (0.4) | r 4 (0.4) | r 2 (0.2) | s 8 (1.2) |
| United States | 1 (0.1) | 6 (0.4) | 4 (0.4) | 2 (0.3) |
| International Avg. | 2 (0.1) | 5 (0.1) | 3 (0.1) | 3 (0.1) |

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

Background data provided by teachers.

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

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

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

How Do Schools Help Students with Reading Difficulties?

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

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

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

Exhibit 5.22: Availability of Specialists
ISC 4th Grade
PIRLS 2001

| Countries | Percentage of Students in Classrooms Where | | | | | | |
|-----------------------|--|------------|------------|-------------------------------|-----------|------------|-----------------------------|
| | Remedial or Reading Specialist Available | | | Other Specialist(s) Available | | | No Access to Any Specialist |
| | Always | Sometimes | Never | Always | Sometimes | Never | |
| Argentina | 1 (0.8) | 3 (1.2) | 96 (1.5) | 4 (1.8) | 22 (4.3) | 74 (4.6) | 73 (4.7) |
| Belize | r 8 (4.2) | r 12 (3.7) | r 80 (5.3) | r 0 (0.0) | r 6 (2.5) | r 94 (2.5) | r 78 (5.2) |
| Bulgaria | 5 (1.8) | 11 (2.4) | 84 (3.0) | 10 (2.5) | 28 (3.0) | 63 (3.1) | 54 (3.6) |
| Canada (O,Q) | 15 (2.5) | 39 (3.5) | 46 (3.4) | 13 (2.1) | 63 (3.1) | 24 (3.0) | 13 (2.2) |
| Colombia | 2 (1.0) | 10 (3.4) | 88 (3.5) | 2 (1.4) | 14 (3.6) | 84 (3.8) | 77 (4.6) |
| Cyprus | 3 (1.5) | 31 (4.7) | 66 (5.0) | 7 (2.2) | 44 (5.0) | 49 (5.1) | 37 (4.6) |
| Czech Republic | 21 (3.8) | 27 (3.7) | 52 (4.2) | 25 (4.0) | 43 (4.5) | 32 (3.9) | 21 (3.3) |
| England | 13 (3.1) | 64 (4.7) | 23 (4.0) | 4 (1.8) | 57 (4.9) | 39 (4.8) | 16 (3.3) |
| France | 4 (1.4) | 23 (2.9) | 73 (3.4) | 5 (1.8) | 36 (4.3) | 59 (4.6) | 48 (4.4) |
| Germany | 7 (1.7) | 26 (2.6) | 67 (2.6) | 2 (0.5) | 11 (1.8) | 88 (1.8) | 62 (2.6) |
| Greece | -- | -- | -- | -- | -- | -- | -- |
| Hong Kong, SAR | 6 (2.2) | 5 (2.0) | 89 (2.6) | 0 (0.0) | 3 (1.3) | 97 (1.4) | 88 (2.7) |
| Hungary | 6 (2.2) | 12 (3.1) | 82 (3.4) | 12 (2.5) | 28 (3.8) | 60 (3.7) | 56 (3.9) |
| Iceland | 27 (0.3) | 62 (0.4) | 11 (0.3) | 4 (0.1) | 39 (0.3) | 56 (0.3) | 10 (0.3) |
| Iran, Islamic Rep. of | 4 (1.3) | 14 (3.2) | 82 (3.4) | 1 (0.6) | 2 (0.8) | 97 (1.0) | 82 (3.5) |
| Israel | 35 (4.4) | 42 (4.7) | 23 (3.0) | 8 (2.5) | 28 (4.0) | 64 (4.2) | 22 (2.9) |
| Italy | 1 (0.0) | 5 (1.8) | 94 (1.9) | 4 (1.6) | 9 (2.3) | 87 (2.8) | 85 (2.9) |
| Kuwait | -- | -- | -- | -- | -- | -- | -- |
| Latvia | 10 (2.7) | 20 (3.1) | 71 (4.0) | 33 (4.2) | 38 (4.7) | 29 (4.0) | 21 (3.6) |
| Lithuania | -- | -- | -- | 59 (3.8) | 24 (4.0) | 17 (2.7) | -- |
| Macedonia, Rep. of | r 10 (2.9) | r 9 (3.0) | r 82 (3.7) | 23 (3.8) | 35 (4.3) | 42 (4.4) | r 41 (4.6) |
| Moldova, Rep. of | 5 (1.7) | 13 (3.6) | 81 (4.0) | 8 (2.3) | 12 (3.4) | 80 (3.9) | 67 (4.3) |
| Morocco | 6 (2.3) | 6 (2.8) | 89 (3.5) | 0 (0.5) | 3 (1.5) | 97 (1.6) | 89 (3.6) |
| Netherlands | 41 (4.6) | 49 (4.4) | 10 (2.6) | 8 (2.5) | 41 (4.1) | 51 (4.1) | 7 (2.3) |
| New Zealand | 21 (3.8) | 40 (4.5) | 39 (4.5) | 18 (3.8) | 61 (4.4) | 21 (3.9) | 19 (3.7) |
| Norway | 7 (2.2) | 49 (4.3) | 44 (4.3) | 3 (1.4) | 61 (4.0) | 36 (3.7) | 21 (3.8) |
| Romania | 5 (1.9) | 8 (2.5) | 86 (3.2) | 2 (1.0) | 14 (2.5) | 84 (2.7) | 78 (3.4) |
| Russian Federation | 6 (1.6) | 18 (2.9) | 76 (3.5) | 13 (2.2) | 33 (3.2) | 54 (3.6) | 49 (3.8) |
| Scotland | 18 (4.1) | 54 (5.0) | 28 (4.4) | 6 (2.4) | 74 (4.1) | 19 (3.6) | 6 (1.8) |
| Singapore | 7 (2.2) | 15 (2.9) | 78 (3.6) | 4 (1.7) | 24 (3.6) | 72 (3.9) | 66 (3.8) |
| Slovak Republic | 6 (2.0) | 9 (2.4) | 85 (3.1) | 14 (3.0) | 35 (4.0) | 50 (4.3) | 46 (4.0) |
| Slovenia | 20 (3.4) | 43 (4.1) | 37 (4.1) | 24 (3.5) | 53 (3.9) | 23 (3.3) | 12 (3.0) |
| Sweden | 18 (2.4) | 64 (3.4) | 18 (2.9) | 4 (0.8) | 28 (3.1) | 69 (3.3) | 15 (2.5) |
| Turkey | 2 (1.2) | 1 (0.0) | 96 (1.2) | 0 (0.0) | 1 (0.6) | 99 (0.6) | 97 (0.9) |
| United States | 26 (4.3) | 39 (3.4) | 35 (4.5) | 21 (3.5) | 65 (5.4) | 14 (3.6) | 7 (2.4) |
| International Avg. | 11 (0.5) | 26 (0.6) | 63 (0.6) | 10 (0.4) | 31 (0.6) | 58 (0.6) | 46 (0.6) |

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

Background data provided by teachers.

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

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

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

two-thirds (63%) were in classes where the teacher reported never having access to a remedial or reading specialist. Countries with most access to remedial or reading specialists (i.e., where 20 percent or more of the students were in classes where such specialists were always available) included the Czech Republic, Iceland, Israel, The Netherlands, New Zealand, Slovenia, and the United States. In general, countries with access to reading specialists had access to other professionals (learning specialists, speech therapists, etc.) also.

Almost all students in Iceland, The Netherlands, Scotland, and the United States were in classes where the teacher could call on some kind of professional assistance to help students having reading difficulties, whereas more than 70 percent of students in Argentina, Belize, Colombia, Hong Kong, Iran, Italy, Morocco, Romania, and Turkey were in classes with no access to professional assistance at all.

Exhibit 5.23 presents teachers' reports on what they usually do if a student begins to fall behind in reading. In almost every country, the teachers' most common response was to spend more time working on reading individually with that student. On average, 88 percent of students were taught by teachers reporting that this was their practice. Another common response was to have other students work on reading with the student having difficulty. This approach was most often reported in Belize, Colombia, Iran, Italy, Moldova, Morocco, Singapore, and the United States, where more than 80 percent of students had teachers adopting this approach, compared to 62 percent on average. Other, less common, strategies included waiting to see if performance improves with maturation (most common in Hong Kong and Latvia), having the student work with a reading specialist (a frequent approach in Iceland and Sweden), and having students work with a teacher aide (a common practice in England, Israel, and Norway). In many of the PIRLS countries, particularly England, Iran, Israel, The Netherlands, New Zealand, and the United States, teachers reported that they used a combination (three or more) of the aforementioned strategies.

Exhibit 5.23: Teachers' Approaches to Dealing with Students Falling Behind in Reading**ISC****4th Grade
PIRLS 2001**

| Countries | Percentage of Students Whose Teachers Reported "Yes" | | | | | |
|-----------------------|--|---------------------------------|--|--------------------------------------|--|---|
| | Wait to See If Performance Improves with Maturation | Work with Students Individually | Have Other Students Work with Students | Have Students Work with Teacher Aide | Have Students Work with Remedial or Reading Specialist | Use Three or More of the Previous Methods |
| Argentina | 59 (4.8) | 90 (3.2) | 63 (4.4) | 10 (2.6) | 6 (2.3) | 37 (4.4) |
| Belize | r 30 (5.7) | 86 (3.7) | 86 (4.0) | r 19 (3.4) | r 18 (4.6) | r 42 (5.7) |
| Bulgaria | 41 (3.8) | 98 (1.2) | 59 (3.6) | 11 (2.8) | 9 (2.3) | 27 (3.6) |
| Canada (O,Q) | 36 (3.2) | 83 (2.1) | 72 (3.1) | 20 (2.6) | 49 (3.6) | 59 (2.9) |
| Colombia | 48 (4.6) | 91 (2.7) | 87 (3.2) | 13 (3.1) | 14 (2.9) | 45 (4.5) |
| Cyprus | 41 (4.8) | 88 (3.0) | 60 (4.6) | 4 (2.2) | 28 (4.8) | 38 (5.2) |
| Czech Republic | 51 (4.0) | 94 (2.1) | 34 (4.1) | 5 (2.1) | 32 (4.2) | 33 (3.5) |
| England | 28 (4.5) | 87 (3.3) | 55 (4.4) | 71 (4.4) | 59 (4.7) | 72 (4.3) |
| France | 43 (3.9) | 80 (2.8) | 53 (4.2) | 20 (3.0) | 21 (3.5) | 36 (3.8) |
| Germany | 20 (2.5) | 82 (2.8) | 65 (3.8) | 6 (1.6) | 21 (2.3) | 24 (3.2) |
| Greece | 50 (4.0) | 94 (2.0) | 48 (4.2) | 4 (1.7) | — | — |
| Hong Kong, SAR | 91 (2.2) | 58 (4.4) | 60 (4.5) | 14 (3.2) | 16 (3.3) | 42 (4.9) |
| Hungary | 18 (3.1) | 99 (0.9) | 33 (4.1) | 1 (0.6) | 20 (3.2) | 15 (2.7) |
| Iceland | 33 (0.4) | 81 (0.3) | 17 (0.3) | 37 (0.4) | 82 (0.3) | 53 (0.4) |
| Iran, Islamic Rep. of | 72 (4.2) | 89 (2.9) | 93 (1.8) | 36 (3.3) | 31 (3.7) | 74 (3.5) |
| Israel | 18 (3.1) | 88 (3.1) | 79 (3.6) | 65 (4.3) | 68 (3.5) | 77 (3.7) |
| Italy | 47 (4.2) | 93 (1.9) | 83 (2.9) | 23 (3.4) | 10 (2.2) | 46 (3.7) |
| Kuwait | 47 (3.5) | 83 (3.0) | 34 (3.8) | 47 (4.0) | 33 (3.8) | 42 (3.5) |
| Latvia | 90 (2.3) | 90 (3.0) | 56 (4.2) | 5 (2.1) | 15 (3.1) | 54 (3.9) |
| Lithuania | 42 (4.3) | 92 (2.4) | 55 (4.8) | 20 (3.5) | 38 (4.0) | 49 (3.9) |
| Macedonia, Rep. of | 50 (4.2) | 98 (1.1) | 61 (3.8) | 9 (2.6) | 8 (2.3) | 34 (3.5) |
| Moldova, Rep. of | 33 (4.5) | 95 (1.9) | 88 (2.5) | 9 (3.3) | 12 (2.9) | 38 (4.8) |
| Morocco | 59 (5.0) | 62 (4.8) | 88 (3.5) | 4 (1.9) | 6 (2.5) | 30 (4.8) |
| Netherlands | 22 (3.9) | 95 (2.0) | 71 (3.8) | 7 (2.1) | 76 (3.5) | 67 (3.3) |
| New Zealand | 18 (3.3) | 92 (2.0) | 78 (3.8) | 48 (4.5) | 36 (4.0) | 60 (4.2) |
| Norway | 52 (4.3) | 89 (2.1) | 10 (2.4) | 64 (4.0) | 47 (4.3) | 52 (4.0) |
| Romania | 21 (3.7) | 97 (1.3) | 65 (3.7) | 9 (2.9) | 12 (3.2) | 23 (4.0) |
| Russian Federation | 47 (3.9) | 95 (1.5) | 74 (3.3) | 27 (4.0) | 18 (3.2) | 54 (4.0) |
| Scotland | 26 (4.4) | 95 (1.9) | 40 (5.0) | 44 (4.5) | 54 (4.9) | 58 (5.1) |
| Singapore | 52 (3.7) | 70 (3.7) | 81 (3.3) | 9 (2.4) | 11 (2.8) | 33 (3.6) |
| Slovak Republic | 43 (3.6) | 98 (1.1) | 68 (3.7) | 1 (0.6) | 9 (2.5) | 32 (3.7) |
| Slovenia | 9 (2.6) | 100 (0.0) | 69 (4.0) | 17 (3.1) | 55 (4.0) | 48 (4.0) |
| Sweden | 38 (3.2) | 83 (2.4) | 24 (2.9) | 31 (3.2) | 77 (3.3) | 54 (3.4) |
| Turkey | 54 (4.5) | 95 (1.9) | 76 (3.5) | 9 (2.6) | 9 (2.6) | 47 (4.7) |
| United States | 34 (4.8) | 86 (3.1) | 84 (3.1) | 31 (4.5) | 51 (4.8) | 65 (3.8) |
| International Avg. | 42 (0.7) | 88 (0.4) | 62 (0.6) | 21 (0.5) | 31 (0.6) | 46 (0.7) |

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

Background data provided by teachers.

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

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

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



Chapter 6

Teachers and Reading Instruction

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

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

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

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

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

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

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

What Preparation Do Teachers Have for Teaching Reading?

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

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

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

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

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

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

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

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

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

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

Exhibit 6.1: Teachers' Gender, Age, and Average Number of Years TeachingISC
4th Grade
PIRLS 2001

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

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

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 (~) indicates insufficient data to report achievement.

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

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 (O,Q) | 91 (1.9) | 7 (1.6) | 0 (0.0) | 0 (0.0) | 2 (1.0) |
| Colombia | 37 (4.2) | 20 (4.0) | 12 (2.9) | 19 (4.1) | 12 (2.6) |
| Cyprus | 43 (4.8) | 22 (4.2) | 2 (0.1) | 0 (0.0) | 33 (4.8) |
| Czech Republic | 1 (0.9) | 40 (4.4) | 34 (4.2) | 14 (3.1) | 11 (2.9) |
| England | 88 (2.7) | 9 (2.0) | 0 (0.0) | 1 (0.0) | 2 (1.7) |
| France | 62 (4.3) | 12 (2.4) | 3 (0.7) | 1 (0.3) | 22 (3.8) |
| Germany | 0 (0.0) | 37 (2.7) | 7 (1.5) | 53 (2.9) | 4 (1.3) |
| Greece | 15 (2.8) | 41 (4.5) | 11 (3.5) | 2 (0.1) | 32 (4.1) |
| Hong Kong, SAR | 29 (3.9) | 16 (3.6) | 0 (0.0) | 0 (0.0) | 55 (4.8) |
| Hungary | 0 (0.0) | 29 (3.7) | 16 (2.5) | 53 (3.6) | 2 (1.1) |
| Iceland | 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) |
| ^a 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) |

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

Background data provided by schools.

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

ISC

4th Grade
PIRLS 2001

| 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 | 90 (3.9) | 2 (1.6) | 3 (1.7) | 6 (3.1) |
| Bulgaria | 19 (3.1) | 32 (4.2) | 25 (3.5) | 24 (3.4) |
| Canada (O,Q) | 58 (3.7) | 22 (2.8) | 7 (1.8) | 13 (2.4) |
| Colombia | 54 (4.8) | 34 (4.3) | 6 (2.5) | 6 (2.7) |
| Cyprus | 61 (5.3) | 32 (5.4) | 1 (0.7) | 7 (2.4) |
| Czech Republic | 54 (5.1) | 39 (5.0) | 2 (1.1) | 5 (1.8) |
| England | 52 (4.6) | 30 (4.3) | 10 (2.7) | 8 (2.5) |
| 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 | 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 | 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) |

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

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**ISC** **4th Grade**
PIRLS 2001

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

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

Background data provided by teachers.

* 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****4th Grade
PIRLS 2001**

| Countries | Percentage of Students Whose Teachers Studied as an Area of Emphasis | | | | | | | |
|-----------------------|--|------------|----------------------------------|------------|---------------------|-------------------|---------------------------------------|----------------------|
| | Language | Literature | Pedagogy/ Teaching Reading | Psychology | Remedial Reading | Reading Theory | Children's 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) | r 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 (O,Q) | 72 (3.0) | 46 (3.7) | 51 (3.4) | 44 (3.4) | 17 (2.5) | 22 (3.1) | 26 (3.3) | 22 (2.9) |
| 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) | r 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) | r 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) | r 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) |

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

Background data provided by teachers.

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

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

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

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

What Instructional Resources Do Teachers Use?

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

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

Children's newspapers and magazines were used as supplementary materials for the majority of children, on average, internationally. The only country to report much use of children's newspapers and magazines as the

basis of reading instruction was France (32%), but most programs relied on these materials as supplements for about half of their students. The most supplementary use of children's newspapers and magazines was in Slovenia (85%).

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

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

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

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

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

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

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

Exhibit 6.6: Materials Schools Used as a Basis for Their Reading Instructional Programs**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Attending Schools That Used as a Basis | | | | |
|-----------------------|---|------------|-----------------------------|--|---|
| | Reading Series | Textbooks | Variety of Children's Books | Children's Newspapers and/or Magazines | Materials from Different Curricular Areas |
| Argentina | 52 (4.6) | 63 (5.0) | 40 (4.6) | 17 (3.9) | 26 (4.2) |
| Belize | 74 (7.3) | r 55 (7.0) | 8 (4.5) | 1 (0.9) | r 10 (3.5) |
| Bulgaria | 59 (3.8) | 99 (0.6) | 5 (1.7) | 3 (1.4) | 6 (1.9) |
| Canada (O,Q) | 35 (3.5) | 41 (3.2) | 36 (3.3) | 4 (1.6) | 21 (3.3) |
| Colombia | 45 (5.0) | 52 (5.0) | 28 (4.6) | 21 (3.4) | 35 (4.5) |
| Cyprus | r 8 (3.0) | 88 (2.4) | 5 (2.2) | 3 (1.9) | 4 (2.1) |
| Czech Republic | 85 (3.2) | 90 (2.5) | 4 (2.1) | 0 (0.0) | 0 (0.0) |
| England | 53 (4.5) | 28 (4.0) | 48 (4.7) | 5 (1.8) | 21 (3.7) |
| France | 44 (4.9) | 53 (5.2) | 46 (4.6) | 32 (4.1) | 47 (4.9) |
| Germany | 9 (2.4) | 93 (1.9) | 3 (1.3) | 0 (0.0) | 17 (2.9) |
| Greece | -- | 95 (2.6) | 1 (0.0) | 0 (0.0) | 2 (1.3) |
| Hong Kong, SAR | 16 (3.1) | 95 (1.8) | 4 (1.9) | 3 (1.5) | 3 (1.3) |
| Hungary | 70 (3.6) | 86 (2.5) | 1 (0.6) | 1 (1.3) | 1 (0.0) |
| Iceland | r 88 (0.3) | r 51 (0.4) | r 13 (0.3) | r 0 (0.1) | r 3 (0.1) |
| Iran, Islamic Rep. of | 23 (3.9) | 89 (3.0) | 8 (3.6) | 3 (1.4) | 11 (2.8) |
| Israel | 48 (4.4) | 74 (3.8) | 29 (3.8) | 12 (2.6) | 28 (3.9) |
| Italy | 8 (1.7) | 91 (2.2) | 5 (1.7) | 2 (1.1) | 12 (2.3) |
| Kuwait | 17 (2.8) | 97 (0.1) | 13 (2.7) | 12 (2.6) | 9 (1.8) |
| Latvia | 17 (3.0) | 86 (2.8) | 3 (1.4) | 1 (0.9) | 2 (1.3) |
| Lithuania | 52 (4.2) | 96 (1.6) | 3 (1.5) | 2 (1.2) | 1 (1.0) |
| Macedonia, Rep. of | 73 (4.0) | 96 (1.6) | 17 (3.4) | 16 (3.6) | 11 (2.4) |
| Moldova, Rep. of | 72 (3.6) | 81 (2.6) | 6 (1.8) | 2 (1.3) | 11 (2.5) |
| Morocco | 52 (5.0) | 64 (5.0) | 19 (4.0) | 12 (3.3) | 64 (4.9) |
| Netherlands | 52 (5.1) | 46 (4.8) | 19 (3.9) | 2 (1.0) | 4 (1.7) |
| New Zealand | 83 (3.2) | 8 (2.3) | 33 (4.1) | 5 (1.9) | 16 (2.8) |
| Norway | 25 (3.9) | 85 (3.8) | 15 (4.3) | 0 (0.0) | 10 (3.8) |
| Romania | 24 (3.6) | 98 (1.1) | 9 (2.5) | 3 (1.2) | 11 (3.0) |
| Russian Federation | 56 (4.0) | 96 (1.5) | 1 (0.5) | 1 (0.8) | 3 (1.2) |
| Scotland | 95 (2.1) | 56 (5.5) | 16 (3.5) | 2 (1.4) | 7 (2.5) |
| Singapore | 22 (2.9) | 97 (1.3) | 2 (0.8) | 2 (1.2) | 6 (2.0) |
| Slovak Republic | 65 (3.5) | 91 (2.6) | 6 (2.0) | 6 (2.3) | 2 (0.7) |
| Slovenia | 81 (3.3) | 73 (3.9) | 7 (2.3) | 1 (0.0) | 1 (0.0) |
| Sweden | 65 (4.3) | 57 (3.9) | 36 (4.8) | 3 (1.6) | 20 (3.6) |
| Turkey | 11 (2.5) | 98 (1.1) | 4 (1.7) | 1 (0.9) | 3 (1.2) |
| United States | 77 (3.6) | 54 (3.8) | 32 (4.4) | 3 (1.5) | 16 (2.8) |
| International Avg. | 49 (0.7) | 75 (0.6) | 15 (0.5) | 5 (0.3) | 13 (0.5) |

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

Background data provided by schools.

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

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

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

Exhibit 6.7: Materials Schools Used as a Supplement to Their Reading Instructional Programs**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Attending Schools That Used as a Supplement | | | | |
|-----------------------|--|------------|-----------------------------|--|---|
| | Reading Series | Textbooks | Variety of Children's Books | Children's Newspapers and/or Magazines | Materials from Different Curricular Areas |
| Argentina | 30 (4.1) | 28 (4.7) | 49 (4.2) | 69 (4.3) | 52 (4.1) |
| Belize | 14 (6.1) | r 25 (6.9) | 54 (7.6) | 40 (5.6) | r 45 (4.9) |
| Bulgaria | 36 (3.7) | 0 (0.0) | 79 (3.3) | 50 (4.4) | 60 (4.0) |
| Canada (O,Q) | 47 (3.6) | 36 (3.1) | 53 (3.7) | 62 (3.1) | 59 (3.7) |
| Colombia | 16 (3.1) | 31 (5.2) | 39 (5.2) | 44 (4.8) | 37 (5.1) |
| Cyprus | r 63 (5.8) | 11 (2.4) | 68 (5.3) | 55 (4.8) | 66 (4.2) |
| Czech Republic | 12 (2.7) | 8 (2.2) | 90 (3.0) | 64 (4.4) | 61 (4.2) |
| England | 34 (4.2) | 59 (4.7) | 46 (4.8) | 49 (4.6) | 69 (4.5) |
| France | 39 (5.7) | 32 (4.8) | 41 (5.0) | 48 (4.6) | 41 (4.6) |
| Germany | 69 (3.8) | 3 (1.3) | 86 (2.8) | 55 (3.7) | 57 (4.3) |
| Greece | -- | 2 (2.2) | 51 (4.6) | 23 (3.7) | 56 (4.1) |
| Hong Kong, SAR | 53 (4.7) | 1 (0.9) | 68 (4.0) | 48 (4.1) | 52 (4.4) |
| Hungary | 20 (3.2) | 9 (2.4) | 86 (2.9) | 50 (3.9) | 52 (4.3) |
| Iceland | r 7 (0.2) | r 39 (0.4) | r 77 (0.4) | r 29 (0.4) | r 69 (0.3) |
| Iran, Islamic Rep. of | 34 (4.2) | 5 (2.0) | 54 (4.2) | 53 (4.6) | 46 (4.8) |
| Israel | 37 (4.3) | 24 (3.8) | 61 (4.2) | 49 (4.4) | 58 (4.7) |
| Italy | 64 (3.8) | 3 (1.1) | 78 (3.0) | 39 (3.8) | 54 (4.3) |
| Kuwait | 44 (4.2) | 1 (0.0) | 57 (3.6) | 56 (4.6) | 35 (3.0) |
| Latvia | 42 (4.5) | 12 (2.9) | 90 (2.1) | 71 (4.2) | 63 (4.4) |
| Lithuania | 34 (4.2) | 2 (1.2) | 89 (2.4) | 66 (3.7) | 66 (3.6) |
| Macedonia, Rep. of | 12 (2.9) | 3 (1.4) | 68 (4.1) | 68 (4.3) | 50 (4.2) |
| Moldova, Rep. of | 19 (3.4) | 15 (2.7) | 74 (3.8) | 58 (4.3) | 52 (4.4) |
| Morocco | 16 (4.3) | 14 (3.6) | 38 (5.4) | 26 (4.7) | 16 (4.0) |
| Netherlands | 41 (5.1) | 53 (4.9) | 79 (4.0) | 63 (4.8) | 75 (4.1) |
| New Zealand | 10 (2.8) | 38 (4.5) | 58 (4.2) | 70 (4.2) | 72 (3.5) |
| Norway | 66 (4.7) | 13 (3.6) | 76 (4.9) | 43 (5.1) | 64 (5.1) |
| Romania | 68 (4.2) | 0 (0.0) | 69 (3.6) | 55 (4.7) | 47 (4.8) |
| Russian Federation | 41 (3.9) | 4 (1.5) | 97 (1.1) | 71 (3.7) | 70 (3.4) |
| Scotland | 3 (1.5) | 41 (5.3) | 80 (3.6) | 38 (5.1) | 86 (3.6) |
| Singapore | 60 (3.8) | 2 (1.2) | 89 (2.4) | 69 (3.1) | 59 (3.7) |
| Slovak Republic | 13 (2.8) | 8 (2.5) | 87 (2.7) | 75 (3.8) | 59 (4.5) |
| Slovenia | 13 (2.6) | 19 (3.4) | 88 (2.6) | 85 (3.3) | 64 (4.2) |
| Sweden | 13 (2.9) | 19 (3.6) | 52 (4.9) | 49 (4.8) | 63 (4.8) |
| Turkey | 61 (4.3) | 2 (1.1) | 73 (3.8) | 31 (3.8) | 40 (3.9) |
| United States | 16 (3.1) | 32 (3.9) | 62 (5.0) | 71 (4.1) | 74 (4.2) |
| International Avg. | 34 (0.7) | 17 (0.5) | 69 (0.7) | 54 (0.7) | 57 (0.7) |

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

Background data provided by schools.

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

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

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

Exhibit 6.8: Teachers' Use of Textbooks/Reading Series and Workbooks/Worksheets for Reading Instruction**ISC****4th Grade**
PIRLS 2001

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

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

Background data provided by teachers.

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

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

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

Exhibit 6.9: Teachers' Use of Workbooks or Worksheets
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 | 45 (4.9) | 419 (10.0) | 44 (5.0) | 422 (10.2) | 10 (3.2) | 426 (11.9) | 1 (0.0) | ~ ~ |
| Belize | 32 (5.5) | 324 (10.9) | 66 (5.2) | 321 (6.3) | 2 (1.9) | ~ ~ | 0 (0.0) | ~ ~ |
| Bulgaria | 19 (3.0) | 550 (11.9) | 57 (4.1) | 555 (5.1) | 21 (3.5) | 538 (9.0) | 4 (1.2) | 548 (15.5) |
| Canada (O,Q) | 16 (2.6) | 543 (4.3) | 65 (3.2) | 545 (2.9) | 16 (2.3) | 544 (6.2) | 2 (1.0) | ~ ~ |
| Colombia | 50 (5.1) | 415 (5.8) | 41 (5.0) | 430 (7.7) | 6 (1.8) | 452 (22.2) | 3 (1.8) | 394 (80.2) |
| Cyprus | 25 (3.9) | 496 (5.8) | 57 (4.5) | 496 (4.0) | 16 (3.8) | 487 (6.5) | 2 (0.0) | ~ ~ |
| Czech Republic | 81 (3.0) | 537 (2.6) | 18 (3.0) | 536 (4.6) | 1 (0.7) | ~ ~ | 0 (0.0) | ~ ~ |
| England | 10 (2.7) | 547 (10.1) | 64 (4.4) | 556 (5.2) | 24 (4.0) | 553 (5.2) | 2 (1.2) | ~ ~ |
| France | 11 (2.4) | 511 (10.6) | 70 (3.5) | 526 (2.7) | 18 (3.1) | 530 (6.1) | 1 (0.9) | ~ ~ |
| Germany | 15 (2.4) | 540 (5.8) | 46 (2.7) | 538 (2.8) | 32 (3.0) | 544 (3.6) | 8 (1.6) | 531 (6.6) |
| Greece | 24 (3.8) | 532 (9.2) | 42 (4.8) | 533 (5.6) | 26 (4.2) | 516 (6.6) | 8 (2.9) | 499 (9.7) |
| Hong Kong, SAR | 25 (3.3) | 530 (6.0) | 50 (4.2) | 530 (5.0) | 23 (4.4) | 527 (6.0) | 3 (1.1) | 502 (5.4) |
| Hungary | 77 (3.5) | 545 (2.4) | 22 (3.3) | 540 (7.0) | 0 (0.1) | ~ ~ | 1 (0.9) | ~ ~ |
| Iceland | 26 (0.3) | 503 (2.3) | 54 (0.4) | 517 (1.8) | 16 (0.3) | 511 (3.7) | 5 (0.2) | 522 (5.3) |
| Iran, Islamic Rep. of | 41 (3.6) | 420 (8.2) | 56 (3.5) | 408 (5.2) | 3 (1.2) | 423 (13.3) | 0 (0.0) | ~ ~ |
| Israel | 64 (4.9) | 504 (5.5) | 30 (4.6) | 513 (9.2) | 5 (2.3) | 525 (21.1) | 1 (0.0) | ~ ~ |
| Italy | 37 (3.6) | 531 (4.5) | 50 (3.8) | 544 (3.4) | 11 (2.2) | 554 (6.1) | 2 (1.2) | ~ ~ |
| Kuwait | 31 (3.3) | 397 (8.0) | 49 (4.2) | 408 (5.9) | 16 (3.1) | 392 (13.9) | 4 (1.5) | 363 (32.1) |
| Latvia | 25 (3.5) | 547 (4.3) | 47 (3.8) | 539 (3.4) | 24 (3.6) | 550 (6.1) | 4 (1.6) | 565 (7.9) |
| Lithuania | 57 (4.3) | 544 (3.8) | 32 (4.0) | 542 (5.0) | 8 (2.4) | 536 (9.8) | 3 (1.5) | 554 (15.5) |
| Macedonia, Rep. of | 47 (4.3) | 427 (7.9) | 45 (4.4) | 449 (8.3) | 7 (2.2) | 486 (19.6) | 1 (0.8) | ~ ~ |
| Moldova, Rep. of | 35 (3.9) | 494 (6.6) | 50 (3.5) | 487 (5.8) | 14 (2.9) | 512 (10.9) | 2 (1.0) | ~ ~ |
| Morocco | 23 (4.8) | 325 (16.9) | 58 (5.4) | 353 (11.1) | 7 (2.5) | 350 (28.6) | 12 (3.7) | 331 (19.8) |
| Netherlands | 17 (3.1) | 553 (5.0) | 70 (3.8) | 552 (3.3) | 11 (3.0) | 565 (5.6) | 2 (1.2) | ~ ~ |
| New Zealand | 22 (3.4) | 514 (7.8) | 52 (4.6) | 537 (5.3) | 21 (3.6) | 516 (11.5) | 6 (1.8) | 557 (6.4) |
| Norway | 17 (3.0) | 500 (8.3) | 54 (4.2) | 496 (3.6) | 24 (3.8) | 509 (6.3) | 5 (2.1) | 480 (7.1) |
| Romania | 63 (3.9) | 508 (6.3) | 34 (3.8) | 520 (7.0) | 3 (1.2) | 494 (27.1) | 0 (0.0) | ~ ~ |
| Russian Federation | 2 (1.2) | ~ ~ | 33 (3.5) | 525 (6.8) | 48 (4.1) | 529 (5.7) | 17 (3.6) | 536 (7.6) |
| Scotland | 18 (3.9) | 538 (10.1) | 67 (4.5) | 524 (4.4) | 14 (2.8) | 538 (9.6) | 0 (0.5) | ~ ~ |
| Singapore | 22 (3.4) | 527 (9.5) | 76 (3.7) | 529 (5.9) | 3 (1.2) | 549 (20.3) | 0 (0.0) | ~ ~ |
| Slovak Republic | 49 (3.9) | 520 (4.4) | 37 (4.0) | 519 (4.7) | 13 (2.7) | 519 (6.8) | 1 (0.9) | ~ ~ |
| Slovenia | 27 (3.4) | 499 (3.4) | 62 (3.5) | 502 (2.6) | 11 (2.5) | 505 (8.7) | 0 (0.0) | ~ ~ |
| Sweden | 9 (2.0) | 564 (6.7) | 43 (3.7) | 561 (3.5) | 24 (2.8) | 556 (4.7) | 23 (3.2) | 567 (3.5) |
| Turkey | 39 (4.0) | 454 (5.9) | 61 (4.0) | 447 (4.8) | 0 (0.0) | ~ ~ | 1 (0.7) | ~ ~ |
| United States | 28 (4.2) | 522 (6.2) | 62 (4.4) | 553 (4.5) | 7 (2.0) | 532 (12.7) | 3 (1.4) | 540 (21.0) |
| International Avg. | 32 (0.6) | 496 (1.3) | 50 (0.7) | 502 (0.9) | 14 (0.5) | 509 (2.3) | 4 (0.3) | 499 (4.5) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.10: Use of Materials for Reading Instruction Other Than Textbooks or a Reading Series, Workbooks or Worksheets**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Used at Least Monthly | | | | |
|-----------------------|---|--|---|----------------------------------|---|
| | A Variety of Children's Books | Children's Newspapers and/or Magazines | Computer Software for Reading Instruction | Reading Material on the Internet | Two or More of the Previous Supplementary Materials |
| Argentina | 85 (3.7) | 89 (3.8) | 13 (3.2) | 10 (2.7) | 80 (4.5) |
| Belize | r 93 (2.5) | r 56 (4.9) | r 1 (1.0) | r 10 (4.1) | r 52 (5.6) |
| Bulgaria | 97 (0.7) | 89 (2.8) | 1 (0.9) | 1 (0.0) | 86 (2.8) |
| Canada (O,Q) | 98 (0.9) | 48 (3.2) | 45 (3.3) | 54 (3.3) | 78 (2.8) |
| Colombia | 97 (1.8) | 84 (3.7) | 9 (2.6) | 2 (1.1) | 83 (3.9) |
| Cyprus | 96 (1.3) | 71 (3.9) | 7 (2.7) | 22 (3.7) | 70 (3.9) |
| Czech Republic | 100 (0.0) | 76 (3.8) | 10 (2.9) | 2 (0.4) | 78 (3.7) |
| England | 100 (0.0) | 58 (4.1) | 46 (4.4) | 49 (5.4) | 79 (3.5) |
| France | 98 (0.9) | 75 (3.4) | 23 (3.4) | 14 (2.5) | 81 (3.3) |
| Germany | 95 (1.3) | 61 (3.2) | 22 (2.9) | 9 (1.9) | 64 (3.3) |
| Greece | 88 (3.4) | 64 (4.6) | 2 (1.2) | 6 (2.7) | 60 (4.4) |
| Hong Kong, SAR | 90 (2.7) | 61 (5.0) | 37 (4.6) | 29 (3.9) | 66 (4.8) |
| Hungary | 100 (0.1) | 82 (3.2) | 2 (1.2) | 5 (2.1) | 82 (3.3) |
| Iceland | 98 (0.1) | 35 (0.3) | 38 (0.4) | 24 (0.3) | 65 (0.4) |
| Iran, Islamic Rep. of | 74 (3.7) | 70 (4.2) | 1 (0.6) | 2 (0.9) | 54 (4.1) |
| Israel | 94 (2.1) | 82 (3.5) | 30 (3.9) | 37 (3.6) | 83 (3.6) |
| Italy | 97 (1.3) | 67 (3.3) | 12 (2.4) | 11 (2.4) | 69 (3.5) |
| Kuwait | 93 (2.1) | r 90 (1.8) | r 9 (2.4) | r 4 (1.7) | r 86 (2.8) |
| Latvia | 100 (0.0) | 75 (4.0) | 2 (1.2) | 2 (1.2) | 74 (4.2) |
| Lithuania | 100 (0.0) | 91 (2.5) | 7 (2.3) | 4 (1.7) | 90 (2.7) |
| Macedonia, Rep. of | 96 (1.7) | 97 (1.2) | r 6 (2.2) | r 3 (1.6) | r 90 (2.6) |
| Moldova, Rep. of | 93 (2.8) | 84 (3.3) | 9 (3.2) | 1 (0.9) | 81 (3.6) |
| Morocco | 64 (5.0) | r 51 (5.3) | r 4 (2.2) | r 8 (2.9) | r 43 (5.7) |
| Netherlands | 96 (1.5) | r 40 (4.8) | r 30 (3.6) | r 8 (2.6) | r 56 (4.6) |
| New Zealand | 100 (0.1) | 75 (4.1) | 49 (4.7) | 56 (4.2) | 89 (2.8) |
| Norway | 97 (1.3) | 54 (3.9) | 28 (3.7) | 19 (2.9) | 67 (3.9) |
| Romania | 100 (0.1) | 87 (2.3) | 2 (1.1) | 3 (1.4) | 86 (2.5) |
| Russian Federation | 100 (0.0) | 91 (1.9) | 1 (0.6) | 1 (0.7) | 90 (1.8) |
| Scotland | 98 (1.4) | 28 (4.3) | 44 (5.0) | 18 (3.5) | 64 (4.4) |
| Singapore | 92 (2.1) | 71 (3.8) | 64 (3.6) | 44 (4.2) | 85 (2.6) |
| Slovak Republic | 100 (0.0) | 96 (1.7) | 0 (0.0) | 0 (0.0) | 96 (1.8) |
| Slovenia | 99 (0.7) | 90 (2.6) | 24 (3.6) | 12 (2.9) | 90 (2.7) |
| Sweden | 98 (0.7) | 73 (2.9) | 44 (3.2) | 35 (3.4) | 82 (2.7) |
| Turkey | 98 (1.1) | 77 (3.7) | 12 (2.6) | 4 (1.4) | 76 (4.0) |
| United States | 99 (0.6) | 77 (4.2) | 63 (3.9) | 50 (4.7) | 91 (1.8) |
| International Avg. | 95 (0.3) | 72 (0.6) | 20 (0.5) | 16 (0.5) | 76 (0.6) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.11: Teachers' Use of Fiction for Reading Instruction

ISC
4th Grade
PIRLS 2001

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

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

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

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

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

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 6.12: Types of Fiction Used for Reading Instruction
ISC 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 (O,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 | r 19 (3.8) | r 29 (4.1) | r 6 (2.3) | r 30 (3.8) | r 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) | r 6 (2.6) |
| Netherlands | 8 (2.5) | r 51 (5.0) | r 76 (3.9) | 12 (2.8) | r 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) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.13: Use of Nonfiction for Reading Instruction**ISC****4th Grade**
PIRLS 2001

| 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 ^r | 69 (6.4) | 313 (6.7) | 31 (6.4) | 348 (12.8) |
| Bulgaria | 37 (3.9) | 554 (6.6) | 63 (3.9) | 549 (5.6) |
| Canada (O,Q) | 60 (3.0) | 547 (2.9) | 40 (3.0) | 541 (3.3) |
| Colombia | 75 (3.6) | 422 (4.8) | 25 (3.6) | 424 (13.4) |
| Cyprus | 65 (4.8) | 497 (4.0) | 35 (4.8) | 490 (4.6) |
| Czech Republic | 31 (4.0) | 545 (4.4) | 69 (4.0) | 533 (2.7) |
| England | 56 (5.1) | 552 (5.8) | 44 (5.1) | 557 (4.9) |
| France | 34 (4.1) | 525 (3.9) | 66 (4.1) | 525 (3.2) |
| Germany | 74 (2.7) | 542 (2.5) | 26 (2.7) | 534 (3.0) |
| Greece | 46 (5.0) | 528 (5.6) | 54 (5.0) | 524 (5.3) |
| Hong Kong, SAR | 28 (3.8) | 531 (5.9) | 72 (3.8) | 527 (3.9) |
| Hungary | 59 (4.1) | 547 (2.8) | 41 (4.1) | 540 (3.9) |
| Iceland | 30 (0.4) | 509 (2.1) | 70 (0.4) | 514 (1.5) |
| Iran, Islamic Rep. of | 49 (3.7) | 412 (7.5) | 51 (3.7) | 415 (4.7) |
| Israel | 49 (3.9) | 520 (5.7) | 51 (3.9) | 490 (6.3) |
| Italy | 77 (3.1) | 542 (2.6) | 23 (3.1) | 538 (5.9) |
| Kuwait ^r | 46 (3.8) | 402 (6.9) | 54 (3.8) | 396 (6.0) |
| Latvia | 36 (4.8) | 544 (3.8) | 64 (4.8) | 546 (3.5) |
| Lithuania | 52 (4.3) | 546 (3.9) | 48 (4.3) | 541 (3.8) |
| Macedonia, Rep. of | 64 (4.6) | 444 (7.6) | 36 (4.6) | 445 (8.7) |
| Moldova, Rep. of | 64 (4.0) | 493 (5.5) | 36 (4.0) | 493 (6.1) |
| Morocco | 40 (5.3) | 326 (12.3) | 60 (5.3) | 355 (12.6) |
| Netherlands | 53 (4.6) | 557 (3.2) | 47 (4.6) | 550 (4.5) |
| New Zealand | 62 (4.2) | 531 (4.9) | 38 (4.2) | 524 (7.1) |
| Norway | 60 (4.5) | 503 (3.9) | 40 (4.5) | 494 (4.3) |
| Romania | 58 (4.3) | 513 (5.9) | 42 (4.3) | 511 (7.2) |
| Russian Federation | 51 (3.2) | 538 (4.0) | 49 (3.2) | 518 (7.3) |
| Scotland | 69 (4.2) | 527 (4.5) | 31 (4.2) | 533 (6.8) |
| Singapore | 59 (4.0) | 524 (7.8) | 41 (4.0) | 535 (7.7) |
| Slovak Republic | 32 (3.7) | 523 (4.4) | 68 (3.7) | 515 (4.2) |
| Slovenia | 58 (4.1) | 499 (2.8) | 42 (4.1) | 505 (2.8) |
| Sweden | 68 (3.2) | 560 (3.2) | 32 (3.2) | 564 (2.3) |
| Turkey | 58 (4.9) | 455 (5.3) | 42 (4.9) | 444 (6.3) |
| United States | 88 (3.1) | 539 (3.7) | 12 (3.1) | 566 (10.8) |
| International Avg. | 56 (0.7) | 501 (0.9) | 44 (0.7) | 501 (1.2) |

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

*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 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 6.14: Use of Films and Other Media for Reading Instruction**ISC****4th Grade
PIRLS 2001**

| 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 30 (5.1) | r 39 (4.6) |
| Bulgaria | 22 (3.3) | 93 (1.8) | 64 (3.8) |
| Canada (O,Q) | 36 (3.9) | 53 (3.7) | 52 (3.4) |
| Colombia | 46 (4.9) | 77 (3.5) | 69 (4.1) |
| Cyprus | 25 (4.2) | 49 (5.1) | 61 (4.2) |
| Czech Republic | 52 (4.4) | 67 (4.0) | 53 (4.6) |
| England | 44 (4.8) | 74 (4.0) | 65 (4.7) |
| France | 20 (2.7) | 49 (3.5) | 38 (3.6) |
| Germany | 22 (2.5) | 36 (3.2) | 29 (2.6) |
| Greece | 25 (4.5) | 59 (4.7) | 50 (4.4) |
| Hong Kong, SAR | 80 (3.5) | 67 (4.4) | 54 (4.5) |
| Hungary | 62 (3.7) | 66 (3.4) | 55 (3.7) |
| Iceland | 29 (0.4) | 48 (0.4) | 15 (0.3) |
| Iran, Islamic Rep. of | 78 (3.5) | 78 (3.8) | 65 (3.8) |
| Israel | 54 (4.6) | 57 (4.3) | 56 (4.7) |
| Italy | 32 (3.6) | 51 (3.3) | 44 (3.9) |
| Kuwait | 58 (4.6) | 57 (3.6) | 75 (3.1) |
| Latvia | 29 (4.4) | 44 (4.7) | 45 (5.1) |
| Lithuania | 48 (4.1) | 62 (4.1) | 83 (3.2) |
| Macedonia, Rep. of | 91 (2.4) | 96 (1.7) | 94 (2.1) |
| Moldova, Rep. of | 61 (4.2) | 77 (3.6) | 89 (2.4) |
| Morocco | 20 (3.7) | 47 (5.4) | 33 (4.8) |
| Netherlands | 18 (3.3) | 69 (4.1) | 25 (4.1) |
| New Zealand | 38 (4.5) | 62 (4.4) | 61 (3.9) |
| Norway | 47 (4.2) | 51 (4.6) | 33 (3.9) |
| Romania | 94 (1.9) | 92 (2.5) | 88 (2.8) |
| Russian Federation | 33 (3.5) | 37 (3.4) | 51 (3.3) |
| Scotland | 19 (4.5) | 67 (4.5) | 49 (4.9) |
| Singapore | 31 (3.9) | 51 (3.7) | 41 (3.7) |
| Slovak Republic | 40 (3.6) | 44 (4.1) | 66 (3.8) |
| Slovenia | 58 (4.3) | 57 (4.0) | 70 (4.0) |
| Sweden | 37 (3.6) | 78 (2.8) | 45 (3.4) |
| Turkey | 35 (4.4) | 51 (4.1) | 65 (4.1) |
| United States | 58 (4.4) | 63 (5.2) | 66 (5.2) |
| International Avg. | 43 (0.7) | 60 (0.7) | 56 (0.7) |

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

Background data provided by teachers.

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

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

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

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**ISC** 4th Grade
PIRLS 2001

| 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 (O,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) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.16: Students' Reports About Teachers Reading Aloud in Class
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 | 78 (1.4) | 423 (5.7) | 16 (1.0) | 438 (8.0) | 3 (0.4) | 421 (14.8) | 3 (0.6) | 434 (20.7) |
| Belize | 73 (2.3) | 331 (5.5) | 18 (1.8) | 332 (9.7) | 5 (0.7) | 312 (21.1) | 4 (0.5) | 294 (13.4) |
| Bulgaria | 79 (1.4) | 552 (3.7) | 17 (1.1) | 557 (5.1) | 2 (0.3) | ~ ~ | 2 (0.5) | ~ ~ |
| Canada (O,Q) | 58 (1.8) | 542 (2.9) | 27 (1.4) | 548 (3.0) | 11 (0.7) | 550 (4.0) | 5 (0.5) | 539 (6.1) |
| Colombia | 89 (1.0) | 422 (4.4) | 8 (0.8) | 450 (8.0) | 1 (0.2) | ~ ~ | 1 (0.3) | ~ ~ |
| Cyprus | 85 (1.2) | 495 (3.1) | 11 (1.0) | 506 (6.9) | 2 (0.3) | ~ ~ | 2 (0.3) | ~ ~ |
| Czech Republic | 35 (1.8) | 530 (3.2) | 39 (1.8) | 540 (3.4) | 18 (1.2) | 544 (4.0) | 8 (1.2) | 538 (5.1) |
| England | 50 (2.1) | 548 (4.8) | 36 (2.0) | 554 (4.6) | 11 (1.3) | 576 (6.4) | 4 (0.9) | 551 (9.6) |
| France | 51 (2.0) | 518 (3.0) | 25 (1.2) | 534 (3.0) | 12 (1.0) | 541 (4.3) | 11 (1.0) | 531 (4.6) |
| Germany | 20 (1.3) | 520 (3.9) | 36 (1.0) | 541 (2.2) | 28 (1.0) | 551 (2.3) | 16 (0.8) | 543 (3.2) |
| Greece | 86 (1.5) | 524 (3.6) | 10 (1.3) | 528 (10.8) | 2 (0.4) | ~ ~ | 2 (0.5) | ~ ~ |
| Hong Kong, SAR | 37 (1.6) | 532 (3.8) | 28 (1.3) | 533 (3.8) | 14 (0.7) | 531 (4.0) | 22 (1.1) | 516 (3.8) |
| Hungary | 45 (2.5) | 537 (3.2) | 36 (2.0) | 548 (2.3) | 15 (1.2) | 555 (4.5) | 4 (0.6) | 539 (8.6) |
| Iceland | 72 (0.8) | 514 (1.5) | 18 (0.7) | 519 (2.7) | 5 (0.3) | 505 (6.2) | 5 (0.4) | 494 (5.0) |
| Iran, Islamic Rep. of | 80 (1.1) | 417 (4.4) | 13 (0.8) | 417 (6.3) | 2 (0.3) | ~ ~ | 5 (0.5) | 389 (7.0) |
| Israel | 75 (0.9) | 508 (2.8) | 17 (0.7) | 523 (5.2) | 5 (0.4) | 535 (8.9) | 3 (0.4) | 487 (12.9) |
| 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 | 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) |

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

Background data provided by students.

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

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

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

Exhibit 6.17: Students' Reports About Students Reading Aloud in Class*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 | 45 (1.7) | 417 (6.6) | 31 (1.1) | 441 (5.7) | 11 (0.9) | 444 (11.0) | 12 (1.3) | 432 (12.4) |
| Belize | 29 (1.6) | 327 (6.3) | 37 (1.4) | 328 (6.6) | 16 (0.9) | 337 (8.8) | 17 (1.3) | 328 (8.7) |
| Bulgaria | 34 (1.7) | 546 (5.0) | 42 (1.3) | 559 (3.7) | 17 (0.9) | 554 (5.6) | 7 (0.8) | 547 (9.4) |
| Canada (O,Q) | 9 (0.8) | 517 (4.7) | 30 (1.2) | 546 (2.8) | 21 (0.9) | 549 (3.3) | 40 (1.5) | 548 (3.2) |
| Colombia | 47 (2.5) | 410 (5.0) | 34 (1.8) | 433 (6.0) | 10 (0.7) | 443 (7.6) | 8 (0.9) | 453 (7.2) |
| Cyprus | 33 (1.4) | 480 (3.9) | 48 (1.3) | 503 (3.4) | 11 (0.8) | 505 (5.2) | 8 (0.6) | 503 (6.8) |
| Czech Republic | 17 (1.3) | 526 (4.1) | 39 (1.3) | 539 (3.0) | 33 (1.5) | 540 (3.1) | 10 (0.8) | 544 (4.8) |
| England | 4 (0.5) | 485 (10.7) | 29 (1.6) | 554 (3.7) | 26 (1.2) | 561 (4.7) | 41 (2.0) | 554 (4.3) |
| France | 13 (0.9) | 494 (5.4) | 35 (1.3) | 521 (3.0) | 25 (1.0) | 538 (3.3) | 27 (1.6) | 537 (3.1) |
| Germany | 7 (0.4) | 511 (4.7) | 25 (0.9) | 534 (2.8) | 23 (0.7) | 546 (2.5) | 45 (1.1) | 545 (2.5) |
| Greece | 30 (1.5) | 504 (4.2) | 42 (1.8) | 529 (5.1) | 16 (1.1) | 550 (5.7) | 11 (1.1) | 538 (4.6) |
| Hong Kong, SAR | 3 (0.3) | 503 (9.2) | 16 (0.8) | 528 (5.1) | 20 (1.0) | 535 (3.7) | 61 (1.4) | 529 (3.0) |
| Hungary | 17 (1.3) | 531 (4.0) | 38 (1.3) | 545 (2.8) | 19 (1.0) | 547 (3.9) | 27 (1.3) | 549 (3.0) |
| Iceland | 5 (0.3) | 477 (5.5) | 28 (0.7) | 517 (2.3) | 28 (0.7) | 522 (2.7) | 38 (0.8) | 511 (2.2) |
| Iran, Islamic Rep. of | 34 (1.4) | 408 (4.0) | 46 (1.6) | 421 (5.7) | 12 (1.0) | 417 (7.5) | 9 (0.7) | 406 (7.5) |
| Israel | 26 (1.2) | 485 (4.3) | 35 (1.0) | 515 (3.7) | 17 (0.8) | 524 (5.2) | 22 (1.0) | 533 (5.1) |
| Italy | 26 (1.2) | 522 (3.5) | 42 (1.1) | 543 (2.8) | 18 (0.9) | 553 (3.3) | 14 (0.9) | 556 (4.4) |
| Kuwait | 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) |

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

*Based on students' responses to how often they do the following: read aloud to the whole class; and read aloud to a small group of students in class. Average is computed based on a 4-point scale: Once or twice a month = 2, Once or twice a week = 3, and Every day or almost every day = 4. Never or almost never indicates an average of 1 to less than 1.75, Once or twice a

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

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

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 6.18: Students' Reports About Independent 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 | 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 (O,Q) | 82 (0.8) | 549 (2.4) | 14 (0.7) | 530 (4.3) | 2 (0.2) | ~ ~ | 1 (0.1) | ~ ~ |
| Colombia | 70 (1.7) | 426 (5.3) | 24 (1.6) | 422 (5.4) | 4 (0.5) | 426 (9.7) | 2 (0.3) | ~ ~ |
| Cyprus | 66 (1.2) | 504 (3.2) | 28 (1.1) | 487 (4.1) | 4 (0.4) | 456 (9.7) | 2 (0.2) | ~ ~ |
| Czech Republic | 51 (1.4) | 539 (2.6) | 36 (1.1) | 535 (3.0) | 8 (0.7) | 541 (5.5) | 5 (0.5) | 532 (7.7) |
| England | 83 (1.1) | 558 (3.4) | 14 (0.9) | 535 (5.4) | 1 (0.2) | ~ ~ | 1 (0.2) | ~ ~ |
| France | 68 (1.1) | 528 (2.7) | 25 (1.0) | 522 (3.1) | 4 (0.3) | 522 (7.7) | 3 (0.3) | 506 (10.0) |
| 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 | 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) | ~ ~ |
| 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) |

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

*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.

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

Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class
ISC 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 (O,Q) | 66 (3.3) | 26 (3.2) | 8 (1.6) | 39 (2.8) | 40 (3.1) | 21 (2.7) |
| Colombia | 54 (4.6) | 39 (4.4) | 7 (2.3) | 41 (5.0) | 39 (4.5) | 19 (3.8) |
| Cyprus | 63 (5.1) | 33 (4.6) | 4 (2.2) | 61 (5.0) | 37 (5.1) | 2 (0.8) |
| Czech Republic | 34 (3.9) | 40 (4.2) | 26 (3.9) | 77 (3.5) | 21 (3.6) | 2 (1.4) |
| England | 72 (4.2) | 27 (4.1) | 2 (1.1) | 40 (4.9) | 42 (4.7) | 18 (3.4) |
| France | 49 (3.8) | 34 (4.3) | 17 (3.0) | 70 (3.4) | 27 (3.4) | 4 (1.3) |
| Germany | 16 (2.6) | 42 (3.0) | 42 (3.0) | 51 (2.9) | 34 (2.9) | 15 (2.4) |
| Greece | 67 (4.5) | 28 (4.2) | 5 (1.8) | 76 (3.1) | 20 (3.0) | 4 (1.8) |
| Hong Kong, SAR | 39 (4.5) | 37 (4.3) | 24 (3.9) | 30 (4.3) | 46 (4.3) | 24 (3.8) |
| Hungary | 29 (4.1) | 58 (4.1) | 13 (2.8) | 56 (4.1) | 33 (4.0) | 11 (2.7) |
| Iceland | 83 (0.4) | 11 (0.3) | 6 (0.2) | 28 (0.3) | 57 (0.4) | 15 (0.4) |
| Iran, Islamic Rep. of | 67 (3.2) | 28 (3.2) | 5 (1.5) | 60 (4.5) | 37 (4.6) | 4 (1.2) |
| Israel | 66 (4.2) | 29 (4.0) | 5 (2.0) | 54 (3.8) | 34 (4.2) | 11 (3.0) |
| Italy | 61 (3.8) | 33 (3.9) | 5 (1.7) | 64 (3.3) | 31 (3.4) | 6 (1.8) |
| Kuwait | r 91 (2.3) | 7 (2.0) | 2 (1.1) | r 62 (3.5) | 16 (2.8) | 22 (2.5) |
| Latvia | 31 (4.0) | 43 (4.4) | 26 (4.1) | 75 (3.7) | 23 (3.5) | 2 (1.4) |
| Lithuania | 47 (4.2) | 38 (4.2) | 15 (3.0) | 84 (3.0) | 15 (2.8) | 1 (0.9) |
| Macedonia, Rep. of | 64 (3.8) | 34 (3.9) | 2 (1.1) | 64 (4.6) | 32 (4.5) | 5 (1.7) |
| Moldova, Rep. of | 54 (4.4) | 33 (4.1) | 13 (2.6) | 86 (3.0) | 11 (2.8) | 2 (0.8) |
| Morocco | 90 (3.1) | 8 (2.9) | 2 (1.4) | r 83 (4.0) | 8 (3.1) | 9 (3.2) |
| Netherlands | 47 (3.8) | 41 (4.0) | 12 (3.1) | 40 (4.6) | 40 (4.7) | 20 (3.5) |
| New Zealand | 78 (3.5) | 18 (3.1) | 4 (1.7) | 12 (2.6) | 38 (4.4) | 50 (4.4) |
| Norway | 73 (3.9) | 23 (3.5) | 4 (2.0) | 25 (3.9) | 51 (4.7) | 24 (4.2) |
| Romania | 66 (4.2) | 27 (4.1) | 7 (2.4) | 95 (1.9) | 5 (1.8) | 1 (0.4) |
| Russian Federation | 78 (3.4) | 18 (2.7) | 4 (1.6) | 91 (2.2) | 8 (2.2) | 1 (0.6) |
| Scotland | 49 (5.5) | 44 (5.2) | 7 (2.5) | 13 (3.6) | 46 (4.6) | 42 (4.9) |
| Singapore | 61 (4.1) | 35 (3.8) | 4 (1.6) | 41 (3.9) | 46 (4.0) | 13 (2.6) |
| Slovak Republic | 52 (4.3) | 36 (4.1) | 12 (2.6) | 77 (3.5) | 19 (3.3) | 3 (1.4) |
| Slovenia | 49 (3.7) | 49 (3.9) | 2 (1.2) | 33 (4.1) | 50 (4.0) | 17 (3.1) |
| Sweden | 60 (3.3) | 35 (3.2) | 5 (1.2) | 10 (2.3) | 48 (3.6) | 42 (3.8) |
| Turkey | 58 (4.5) | 38 (4.4) | 4 (1.9) | 63 (4.2) | 31 (4.0) | 6 (2.2) |
| United States | 81 (3.6) | 16 (3.0) | 4 (1.8) | 48 (4.7) | 40 (4.5) | 13 (3.1) |
| International Avg. | 61 (0.7) | 31 (0.7) | 9 (0.4) | 56 (0.6) | 31 (0.6) | 13 (0.4) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.19: Teachers' Reports About Reading Aloud or Silently in Class (Continued)**ISC****4th Grade
PIRLS 2001**

| 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 (O,Q) | 11 (2.1) | 37 (3.0) | 52 (3.2) | 71 (3.1) | 24 (2.9) | 5 (1.2) |
| Colombia | 12 (3.2) | 33 (4.1) | 54 (4.4) | 43 (4.7) | 42 (4.3) | 15 (3.2) |
| Cyprus | 9 (2.5) | 29 (4.8) | 62 (4.9) | 55 (4.6) | 36 (4.5) | 9 (3.5) |
| Czech Republic | 3 (1.5) | 31 (3.6) | 66 (3.7) | 43 (4.5) | 46 (4.5) | 11 (2.7) |
| England | 23 (4.2) | 45 (5.0) | 32 (4.1) | 76 (4.0) | 23 (4.0) | 2 (1.2) |
| France | 1 (0.8) | 11 (2.4) | 88 (2.6) | 78 (3.3) | 20 (3.3) | 2 (1.2) |
| Germany | 5 (1.1) | 39 (3.0) | 56 (2.9) | 63 (3.3) | 30 (3.4) | 7 (1.6) |
| Greece | 16 (3.2) | 25 (4.2) | 58 (4.8) | 49 (5.0) | 33 (4.4) | 19 (4.2) |
| Hong Kong, SAR | 6 (2.0) | 27 (4.3) | 68 (4.3) | 39 (4.1) | 34 (3.9) | 28 (4.2) |
| Hungary | 5 (1.7) | 20 (3.4) | 75 (3.3) | 66 (3.6) | 28 (3.4) | 5 (1.8) |
| Iceland | 4 (0.2) | 12 (0.3) | 85 (0.3) | 47 (0.4) | 44 (0.4) | 9 (0.2) |
| Iran, Islamic Rep. of | 11 (2.1) | 35 (4.2) | 54 (4.2) | 34 (3.5) | 43 (3.3) | 23 (3.6) |
| Israel | 23 (4.1) | 45 (4.7) | 33 (4.6) | 61 (4.5) | 32 (4.2) | 7 (2.4) |
| Italy | 3 (1.2) | 22 (3.3) | 75 (3.5) | 42 (3.9) | 42 (3.6) | 16 (2.7) |
| Kuwait | 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 | 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) |

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

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
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 | 58 (1.4) | 427 (6.1) | 24 (1.0) | 437 (6.3) | 11 (0.8) | 429 (9.9) | 7 (0.6) | 424 (9.0) |
| Belize | 43 (2.1) | 330 (6.3) | 31 (1.6) | 339 (7.2) | 14 (0.9) | 315 (7.6) | 12 (1.2) | 318 (6.6) |
| Bulgaria | 70 (1.5) | 557 (3.6) | 23 (1.1) | 552 (4.7) | 5 (0.6) | 517 (8.9) | 2 (0.4) | ~ ~ |
| Canada (O,Q) | 29 (1.2) | 531 (3.2) | 34 (1.1) | 546 (2.7) | 20 (1.0) | 559 (3.2) | 17 (0.9) | 551 (3.9) |
| Colombia | 60 (1.8) | 422 (5.0) | 25 (1.3) | 432 (6.3) | 6 (0.6) | 420 (8.4) | 9 (0.6) | 416 (5.9) |
| Cyprus | 68 (1.3) | 503 (3.3) | 21 (1.2) | 488 (4.8) | 8 (0.5) | 468 (7.9) | 3 (0.4) | 456 (8.5) |
| Czech Republic | 32 (1.6) | 529 (3.3) | 34 (1.4) | 538 (3.0) | 21 (1.1) | 549 (3.2) | 13 (1.1) | 538 (3.3) |
| England | 18 (1.2) | 530 (5.1) | 35 (1.2) | 553 (3.9) | 22 (1.0) | 563 (4.5) | 24 (1.3) | 562 (4.8) |
| France | 51 (1.3) | 527 (3.0) | 29 (1.1) | 527 (2.9) | 9 (0.6) | 534 (5.2) | 11 (0.8) | 514 (5.5) |
| Germany | 34 (0.8) | 536 (2.7) | 36 (0.8) | 544 (2.1) | 18 (0.6) | 545 (3.0) | 12 (0.6) | 536 (3.7) |
| Greece | 79 (1.3) | 527 (4.0) | 17 (1.1) | 525 (5.6) | 3 (0.4) | 499 (13.5) | 2 (0.3) | ~ ~ |
| Hong Kong, SAR | 32 (1.1) | 538 (3.0) | 33 (1.2) | 534 (3.1) | 17 (0.8) | 523 (3.9) | 18 (0.9) | 510 (5.1) |
| Hungary | 52 (1.9) | 546 (2.6) | 34 (1.4) | 544 (2.5) | 10 (0.8) | 541 (5.2) | 4 (0.4) | 540 (6.6) |
| Iceland | 21 (0.6) | 497 (3.3) | 31 (0.6) | 520 (2.3) | 18 (0.6) | 526 (3.4) | 30 (0.8) | 512 (2.9) |
| Iran, Islamic Rep. of | 59 (1.5) | 419 (4.0) | 28 (1.2) | 420 (6.7) | 6 (0.8) | 377 (7.6) | 6 (0.6) | 391 (7.5) |
| Israel | 46 (1.0) | 502 (3.6) | 33 (0.9) | 524 (3.8) | 12 (0.6) | 514 (5.6) | 10 (0.7) | 513 (7.3) |
| Italy | 44 (1.2) | 534 (2.7) | 34 (1.0) | 546 (3.2) | 14 (0.6) | 554 (4.2) | 8 (0.5) | 543 (5.6) |
| Kuwait | 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) |

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

Background data provided by students.

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

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

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

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 | 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) |

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

*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.

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

Exhibit 6.22: Students Talk in Class with Peers About 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 | 44 (1.5) | 421 (5.8) | 24 (0.9) | 440 (5.4) | 10 (0.7) | 430 (10.7) | 21 (1.2) | 441 (7.9) |
| Belize | 29 (1.4) | 326 (5.6) | 31 (1.2) | 332 (6.3) | 14 (0.7) | 309 (8.8) | 26 (1.2) | 341 (7.8) |
| Bulgaria | 33 (1.5) | 547 (4.5) | 35 (1.4) | 562 (4.1) | 13 (0.8) | 556 (5.9) | 18 (1.2) | 541 (6.6) |
| Canada (O,Q) | 15 (0.8) | 533 (4.0) | 29 (0.8) | 551 (2.9) | 23 (0.7) | 552 (3.5) | 33 (1.0) | 539 (2.6) |
| Colombia | 47 (2.2) | 412 (5.0) | 30 (1.6) | 431 (5.4) | 9 (0.7) | 439 (8.2) | 14 (1.1) | 442 (7.8) |
| Cyprus | 35 (1.5) | 486 (3.5) | 37 (1.0) | 503 (4.1) | 15 (0.8) | 498 (6.2) | 13 (1.0) | 501 (6.0) |
| Czech Republic | 9 (0.8) | 527 (6.0) | 23 (1.1) | 539 (3.4) | 25 (1.0) | 552 (2.5) | 43 (1.6) | 529 (2.9) |
| England | 11 (0.7) | 535 (7.0) | 27 (0.9) | 560 (4.0) | 24 (1.0) | 572 (4.9) | 39 (1.3) | 543 (4.4) |
| France | 16 (0.8) | 518 (4.4) | 27 (1.0) | 528 (3.4) | 19 (1.0) | 539 (4.2) | 38 (1.0) | 522 (2.9) |
| Germany | 15 (0.5) | 533 (3.1) | 25 (0.6) | 548 (2.2) | 20 (0.6) | 552 (2.8) | 40 (0.9) | 533 (2.6) |
| Greece | 34 (1.3) | 520 (3.9) | 31 (1.2) | 531 (5.0) | 13 (0.9) | 534 (6.7) | 22 (1.3) | 519 (5.8) |
| Hong Kong, SAR | 18 (0.8) | 527 (3.8) | 34 (0.7) | 534 (3.4) | 26 (0.8) | 533 (3.2) | 22 (0.8) | 519 (4.5) |
| Hungary | 14 (1.2) | 538 (3.8) | 28 (1.3) | 545 (3.1) | 22 (0.9) | 552 (2.9) | 36 (1.3) | 542 (2.8) |
| Iceland | 9 (0.5) | 491 (5.4) | 20 (0.7) | 526 (2.7) | 18 (0.6) | 525 (3.1) | 54 (0.8) | 510 (1.5) |
| Iran, Islamic Rep. of | 35 (1.0) | 414 (4.4) | 41 (1.1) | 423 (5.2) | 14 (0.9) | 413 (6.6) | 9 (0.7) | 388 (7.9) |
| Israel | 27 (0.8) | 495 (3.7) | 31 (0.9) | 518 (3.4) | 17 (0.8) | 530 (5.1) | 25 (1.0) | 508 (4.4) |
| Italy | 33 (1.2) | 532 (3.3) | 30 (1.1) | 543 (3.3) | 16 (0.9) | 557 (3.9) | 21 (0.9) | 543 (3.5) |
| Kuwait | 33 (1.0) | 405 (4.2) | 36 (1.1) | 409 (4.2) | 15 (0.9) | 390 (7.2) | 16 (0.7) | 385 (6.5) |
| Latvia | 19 (1.0) | 539 (3.7) | 35 (1.1) | 543 (3.0) | 21 (0.8) | 555 (3.3) | 25 (1.3) | 545 (3.0) |
| Lithuania | 20 (1.0) | 535 (4.3) | 39 (1.1) | 549 (3.0) | 20 (0.9) | 549 (3.9) | 20 (0.9) | 539 (3.9) |
| Macedonia, Rep. of | 46 (1.5) | 441 (5.0) | 38 (1.3) | 453 (5.7) | 10 (0.8) | 447 (8.8) | 5 (0.4) | 426 (11.6) |
| Moldova, Rep. of | 44 (2.5) | 501 (4.6) | 42 (2.0) | 492 (5.0) | 9 (0.8) | 476 (7.8) | 5 (0.6) | 464 (10.7) |
| Morocco | 38 (2.4) | 366 (15.0) | 39 (2.1) | 341 (9.7) | 13 (1.0) | 346 (13.5) | 10 (1.0) | 346 (15.2) |
| Netherlands | 5 (0.5) | 527 (7.8) | 14 (0.7) | 562 (3.6) | 18 (0.9) | 567 (3.1) | 62 (1.2) | 552 (2.7) |
| New Zealand | 17 (0.9) | 502 (6.8) | 31 (1.2) | 535 (5.3) | 23 (1.0) | 550 (4.9) | 29 (1.2) | 528 (4.0) |
| Norway | 8 (0.7) | 472 (7.3) | 24 (0.9) | 507 (4.3) | 23 (0.8) | 510 (4.1) | 46 (1.2) | 497 (3.6) |
| Romania | 36 (2.0) | 515 (5.1) | 41 (1.6) | 516 (5.4) | 13 (0.9) | 519 (8.8) | 10 (1.0) | 486 (7.3) |
| Russian Federation | 25 (1.7) | 526 (6.6) | 33 (1.0) | 527 (5.4) | 16 (0.9) | 537 (5.4) | 26 (1.3) | 528 (3.4) |
| Scotland | 12 (0.8) | 498 (6.4) | 31 (2.1) | 529 (4.9) | 20 (0.9) | 551 (4.6) | 36 (2.0) | 527 (4.6) |
| Singapore | 14 (0.6) | 512 (7.7) | 24 (0.7) | 536 (5.3) | 19 (0.6) | 533 (6.6) | 43 (0.9) | 528 (4.6) |
| Slovak Republic | 16 (1.2) | 503 (5.6) | 31 (1.1) | 530 (2.9) | 27 (1.1) | 526 (3.5) | 25 (1.4) | 508 (5.0) |
| Slovenia | 16 (0.8) | 493 (4.7) | 30 (1.2) | 501 (2.7) | 22 (1.1) | 511 (3.7) | 33 (1.6) | 503 (2.9) |
| Sweden | 7 (0.5) | 554 (5.1) | 27 (0.9) | 569 (3.2) | 32 (0.9) | 564 (2.5) | 34 (1.1) | 553 (2.4) |
| Turkey | 34 (1.2) | 454 (4.5) | 42 (1.3) | 455 (3.9) | 14 (0.7) | 446 (5.6) | 10 (1.2) | 421 (10.2) |
| United States | 14 (0.9) | 520 (7.2) | 24 (0.9) | 549 (4.8) | 20 (0.9) | 554 (4.8) | 42 (1.3) | 541 (4.2) |
| International Avg. | 24 (0.2) | 492 (1.0) | 31 (0.2) | 506 (0.8) | 18 (0.1) | 508 (1.0) | 27 (0.2) | 495 (1.0) |

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

Background data provided by students.

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

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

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

Exhibit 6.23: Students Do Projects 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 | 36 (1.3) | 411 (6.7) | 32 (0.9) | 429 (6.2) | 21 (1.1) | 449 (6.5) | 11 (1.0) | 459 (11.0) |
| Belize | 21 (1.2) | 318 (6.4) | 34 (1.5) | 325 (6.2) | 29 (1.2) | 331 (6.9) | 16 (1.4) | 349 (8.3) |
| Bulgaria | 10 (0.8) | 516 (5.2) | 21 (1.2) | 544 (6.1) | 35 (1.5) | 563 (3.5) | 34 (1.6) | 558 (5.8) |
| Canada (O,Q) | 8 (0.7) | 500 (3.7) | 15 (0.8) | 519 (3.6) | 28 (0.9) | 545 (2.9) | 49 (1.2) | 559 (2.7) |
| Colombia | 36 (2.2) | 403 (5.7) | 29 (1.1) | 424 (4.2) | 20 (1.2) | 444 (5.7) | 15 (1.5) | 448 (9.4) |
| Cyprus | 20 (1.1) | 466 (4.2) | 31 (1.1) | 488 (3.4) | 31 (1.2) | 506 (4.2) | 18 (1.0) | 526 (4.4) |
| Czech Republic | 3 (0.5) | 499 (8.2) | 11 (1.0) | 512 (5.6) | 30 (1.5) | 532 (3.2) | 56 (1.9) | 547 (2.6) |
| England | 4 (0.6) | 469 (11.4) | 11 (0.9) | 509 (6.2) | 25 (1.3) | 542 (3.7) | 61 (2.0) | 570 (3.5) |
| France | 6 (0.6) | 483 (5.8) | 16 (0.8) | 500 (3.1) | 30 (1.0) | 524 (3.0) | 48 (1.6) | 542 (2.7) |
| Germany | 5 (0.4) | 495 (6.3) | 13 (0.6) | 519 (3.6) | 25 (0.6) | 535 (2.9) | 57 (1.0) | 551 (1.8) |
| Greece | 11 (0.8) | 476 (4.8) | 22 (1.3) | 513 (4.8) | 33 (1.5) | 525 (4.9) | 33 (1.6) | 551 (4.1) |
| Hong Kong, SAR | 3 (0.3) | 499 (7.5) | 11 (0.5) | 510 (5.2) | 31 (0.9) | 530 (3.6) | 55 (1.0) | 533 (2.9) |
| Hungary | 6 (0.5) | 500 (5.1) | 21 (1.2) | 530 (3.3) | 37 (1.2) | 547 (2.6) | 37 (1.4) | 556 (2.6) |
| Iceland | 3 (0.4) | 458 (9.3) | 12 (0.6) | 497 (4.2) | 27 (0.7) | 518 (2.4) | 57 (0.8) | 519 (1.5) |
| Iran, Islamic Rep. of | 12 (0.8) | 394 (5.6) | 28 (1.6) | 404 (5.2) | 29 (1.1) | 423 (5.3) | 31 (2.1) | 425 (7.8) |
| Israel | 15 (0.9) | 473 (5.9) | 24 (0.8) | 489 (3.5) | 28 (0.9) | 513 (3.8) | 32 (1.2) | 545 (3.4) |
| Italy | 9 (0.7) | 498 (5.3) | 19 (0.9) | 518 (3.7) | 29 (0.9) | 541 (3.2) | 43 (1.3) | 561 (2.6) |
| Kuwait | 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) |

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

*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.

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

Exhibit 6.24: Teachers' Reports About Reading Comprehension Activities After InstructionISC
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 (O,Q) | 54 (2.8) | 84 (2.5) | 52 (3.4) | 26 (2.7) | 6 (1.7) | 7 (1.5) | 41 (3.0) |
| Colombia | 83 (3.8) | 84 (3.4) | 79 (4.1) | 55 (4.5) | 15 (3.3) | 14 (3.2) | 75 (3.9) |
| Cyprus | 83 (4.3) | 95 (2.5) | 83 (3.8) | 33 (4.0) | 54 (5.1) | 48 (4.8) | 83 (3.8) |
| Czech Republic | 80 (3.1) | 98 (1.1) | 80 (3.1) | 46 (4.3) | 13 (2.5) | 11 (2.8) | 74 (3.5) |
| England | 79 (3.7) | 94 (2.3) | 67 (4.8) | 14 (3.8) | 8 (2.9) | 4 (1.9) | 63 (4.9) |
| France | 18 (2.7) | 78 (3.3) | 32 (3.3) | 10 (2.4) | 4 (1.4) | 10 (2.0) | 17 (2.5) |
| Germany | 41 (2.6) | 95 (1.4) | 95 (1.2) | 15 (2.0) | 2 (1.0) | 14 (2.4) | 47 (3.0) |
| Greece | 72 (4.2) | 96 (1.7) | 60 (4.4) | 32 (4.7) | 19 (3.6) | 12 (2.7) | 56 (4.4) |
| Hong Kong, SAR | 44 (4.9) | 85 (3.0) | 37 (4.7) | 6 (1.9) | 3 (1.5) | 5 (2.0) | 24 (3.9) |
| Hungary | 75 (3.3) | 99 (0.8) | 46 (4.2) | 36 (4.5) | 19 (3.0) | 17 (3.1) | 59 (4.2) |
| Iceland | 51 (0.4) | 45 (0.4) | 21 (0.3) | 35 (0.3) | 2 (0.1) | 13 (0.2) | 25 (0.3) |
| Iran, Islamic Rep. of | 67 (3.8) | 86 (2.8) | 60 (3.9) | 28 (3.1) | 11 (2.3) | 10 (2.3) | 49 (4.2) |
| Israel | 96 (1.8) | 89 (2.8) | 70 (4.3) | 42 (4.2) | 39 (4.6) | 23 (3.2) | 74 (4.1) |
| Italy | 63 (3.5) | 93 (2.0) | 72 (3.1) | 56 (3.2) | 7 (1.7) | 5 (1.8) | 67 (3.2) |
| Kuwait | 70 (3.7) | 81 (2.8) | 60 (4.0) | r 22 (3.6) | 28 (3.1) | 20 (3.2) | 56 (4.3) |
| Latvia | 68 (3.5) | 98 (1.2) | 63 (4.5) | 56 (4.3) | 23 (4.0) | 5 (2.3) | 66 (4.5) |
| Lithuania | 72 (3.5) | 97 (1.3) | 83 (3.1) | 32 (3.4) | 13 (2.7) | 6 (1.8) | 66 (3.8) |
| Macedonia, Rep. of | 88 (3.1) | 95 (2.0) | 80 (2.9) | 47 (4.3) | 39 (4.2) | 20 (3.6) | 77 (3.6) |
| Moldova, Rep. of | 83 (3.2) | 99 (0.9) | 86 (3.0) | 59 (4.3) | 32 (4.0) | 55 (4.2) | 84 (3.3) |
| Morocco | 58 (4.3) | 96 (1.9) | 76 (4.8) | 21 (4.9) | 14 (4.2) | 13 (3.1) | 56 (4.4) |
| Netherlands | 40 (4.6) | 72 (4.4) | 57 (4.5) | 18 (3.6) | 3 (1.5) | 1 (0.9) | 29 (4.0) |
| New Zealand | 80 (3.4) | 87 (2.9) | 78 (3.8) | 47 (4.1) | 13 (2.9) | 9 (2.1) | 71 (4.1) |
| Norway | 51 (4.1) | 80 (3.4) | 32 (3.6) | 23 (3.5) | 3 (1.2) | 1 (0.5) | 28 (3.6) |
| Romania | 93 (2.0) | 97 (1.5) | 75 (4.0) | 18 (3.7) | 39 (4.2) | 6 (2.0) | 84 (3.1) |
| Russian Federation | 33 (3.3) | 99 (0.7) | 79 (3.2) | 48 (3.2) | 19 (2.9) | 6 (1.7) | 54 (3.7) |
| Scotland | 62 (4.1) | 93 (2.1) | 56 (4.9) | 23 (4.5) | 0 (0.0) | 3 (1.7) | 43 (5.0) |
| Singapore | 55 (4.4) | 92 (2.0) | 57 (3.9) | 13 (2.7) | 7 (2.1) | 5 (1.7) | 43 (3.9) |
| Slovak Republic | 76 (3.7) | 100 (0.4) | 68 (3.8) | 61 (4.3) | 14 (2.8) | 8 (2.4) | 71 (3.9) |
| Slovenia | 73 (3.4) | 93 (2.2) | 71 (3.7) | 66 (4.2) | 29 (4.0) | 5 (1.9) | 73 (3.8) |
| Sweden | 64 (3.3) | 66 (3.4) | 45 (4.1) | 22 (2.9) | 2 (0.9) | 6 (1.7) | 41 (3.7) |
| Turkey | 95 (1.8) | 91 (2.6) | 71 (4.0) | 35 (4.1) | 29 (4.2) | 8 (2.4) | 74 (3.7) |
| United States | 83 (3.6) | 97 (1.8) | 70 (4.1) | 36 (4.4) | 2 (0.8) | 13 (3.3) | 69 (4.2) |
| International Avg. | 68 (0.6) | 90 (0.4) | 65 (0.7) | 36 (0.6) | 17 (0.5) | 13 (0.5) | 59 (0.7) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.25: Students' Reports on Taking a Quiz or Test After 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 | 45 (1.4) | 423 (6.3) | 26 (0.9) | 437 (6.6) | 17 (0.9) | 439 (8.0) | 13 (0.8) | 431 (8.3) |
| Belize | 30 (2.0) | 321 (7.2) | 42 (1.9) | 338 (6.5) | 17 (1.2) | 331 (7.1) | 12 (1.0) | 316 (9.1) |
| Bulgaria | 17 (1.0) | 511 (6.5) | 34 (1.5) | 563 (4.7) | 36 (1.7) | 562 (4.2) | 14 (1.2) | 551 (9.9) |
| Canada (O,Q) | 12 (0.6) | 518 (3.7) | 24 (1.0) | 539 (3.4) | 31 (1.2) | 553 (2.5) | 33 (1.2) | 550 (3.6) |
| Colombia | 53 (1.8) | 417 (5.0) | 28 (1.4) | 430 (6.1) | 12 (1.2) | 434 (9.2) | 7 (0.5) | 438 (8.2) |
| Cyprus | 18 (0.9) | 457 (4.9) | 25 (1.2) | 489 (4.3) | 45 (1.3) | 512 (3.1) | 12 (0.8) | 507 (7.1) |
| Czech Republic | 5 (0.6) | 484 (5.7) | 14 (1.2) | 533 (4.6) | 27 (1.9) | 545 (3.8) | 53 (2.1) | 540 (3.1) |
| England | 5 (0.5) | 483 (8.7) | 14 (1.0) | 534 (5.8) | 31 (1.1) | 560 (3.9) | 50 (1.6) | 561 (3.7) |
| France | 21 (1.5) | 499 (3.8) | 26 (1.2) | 521 (2.9) | 31 (1.6) | 542 (3.4) | 22 (1.2) | 535 (3.7) |
| Germany | 9 (0.5) | 501 (3.7) | 18 (0.7) | 530 (2.7) | 35 (0.7) | 553 (2.5) | 39 (0.9) | 543 (2.3) |
| Greece | 19 (1.3) | 494 (4.6) | 41 (1.7) | 529 (5.3) | 34 (1.8) | 534 (4.8) | 7 (1.1) | 549 (13.2) |
| Hong Kong, SAR | 5 (0.4) | 496 (7.5) | 14 (0.8) | 519 (5.2) | 35 (1.3) | 531 (3.7) | 46 (1.1) | 533 (3.2) |
| Hungary | 9 (0.7) | 508 (5.7) | 27 (1.4) | 537 (3.8) | 50 (1.6) | 552 (2.5) | 13 (0.9) | 557 (4.2) |
| Iceland | 6 (0.4) | 444 (5.2) | 11 (0.6) | 494 (4.1) | 33 (0.8) | 518 (2.1) | 50 (0.7) | 524 (1.8) |
| Iran, Islamic Rep. of | 23 (1.4) | 402 (5.7) | 39 (1.3) | 419 (4.5) | 27 (1.5) | 423 (6.0) | 10 (0.7) | 410 (9.5) |
| Israel | 42 (1.1) | 501 (3.5) | 25 (0.8) | 516 (3.4) | 19 (1.0) | 531 (6.0) | 14 (0.7) | 514 (5.5) |
| Italy | 28 (1.3) | 518 (3.5) | 32 (1.2) | 547 (2.8) | 27 (1.2) | 554 (3.2) | 13 (0.9) | 551 (5.1) |
| Kuwait | 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) |

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

Background data provided by students.

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

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

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

Exhibit 6.26: Teachers' Reports on Giving a Written Quiz or Test After Students ReadISC
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 (O,Q) | 0 (0.4) | ~ ~ | 15 (2.1) | 540 (5.4) | 62 (3.2) | 545 (2.8) | 23 (2.7) | 548 (6.1) |
| Colombia | 14 (3.5) | 398 (13.2) | 33 (4.6) | 424 (7.8) | 42 (4.8) | 425 (7.2) | 12 (3.0) | 439 (21.0) |
| Cyprus | 1 (0.0) | ~ ~ | 14 (3.8) | 507 (6.9) | 49 (5.7) | 490 (4.4) | 35 (4.8) | 493 (4.6) |
| Czech Republic | 0 (0.4) | ~ ~ | 15 (3.3) | 538 (6.3) | 62 (4.6) | 536 (3.6) | 23 (3.6) | 539 (4.1) |
| England | 0 (0.0) | ~ ~ | 5 (2.1) | 551 (28.1) | 45 (4.4) | 553 (5.6) | 50 (4.5) | 556 (4.9) |
| France | 2 (1.0) | ~ ~ | 21 (3.3) | 528 (5.8) | 62 (3.8) | 524 (2.9) | 16 (2.8) | 528 (6.3) |
| Germany | 0 (0.0) | ~ ~ | 3 (1.1) | 548 (6.8) | 50 (3.8) | 537 (2.8) | 47 (3.9) | 541 (3.7) |
| Greece | 0 (0.0) | ~ ~ | 22 (4.2) | 538 (7.6) | 64 (4.5) | 520 (4.4) | 14 (3.3) | 533 (10.4) |
| Hong Kong, SAR | 0 (0.0) | ~ ~ | 11 (2.6) | 514 (9.6) | 55 (4.4) | 526 (4.6) | 34 (4.5) | 538 (3.9) |
| Hungary | 1 (0.6) | ~ ~ | 4 (1.6) | 518 (16.2) | 84 (3.2) | 545 (2.7) | 12 (2.7) | 550 (9.5) |
| Iceland | 1 (0.0) | ~ ~ | 3 (0.1) | 474 (6.5) | 30 (0.4) | 501 (2.7) | 67 (0.4) | 518 (1.3) |
| Iran, Islamic Rep. of | 6 (1.5) | 389 (13.4) | 34 (4.1) | 410 (7.7) | 49 (3.9) | 417 (6.4) | 12 (2.8) | 422 (18.9) |
| 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) | ~ ~ | 4 (1.7) | 498 (33.2) | 20 (3.3) | 532 (8.5) | 76 (3.6) | 530 (4.8) |
| Norway | 0 (0.0) | ~ ~ | 5 (1.2) | 495 (6.4) | 30 (3.7) | 496 (5.0) | 66 (4.0) | 501 (3.8) |
| Romania | 2 (1.0) | ~ ~ | 28 (3.4) | 507 (9.7) | 68 (3.6) | 512 (5.6) | 3 (1.4) | 506 (22.7) |
| Russian Federation | 2 (1.0) | ~ ~ | 6 (1.4) | 538 (7.1) | 67 (2.9) | 529 (6.1) | 25 (2.8) | 525 (4.9) |
| Scotland | 0 (0.0) | ~ ~ | 4 (1.8) | 545 (24.5) | 37 (5.2) | 524 (6.3) | 60 (5.3) | 530 (4.4) |
| Singapore | 2 (1.0) | ~ ~ | 10 (2.0) | 507 (15.8) | 42 (3.9) | 533 (8.6) | 46 (3.7) | 529 (7.2) |
| Slovak Republic | 1 (0.6) | ~ ~ | 9 (2.2) | 524 (9.2) | 48 (3.8) | 521 (3.8) | 42 (3.7) | 513 (5.5) |
| Slovenia | 1 (0.7) | ~ ~ | 18 (3.3) | 496 (5.8) | 63 (4.0) | 503 (2.6) | 18 (3.3) | 506 (5.5) |
| Sweden | 1 (0.5) | ~ ~ | 8 (1.7) | 558 (5.9) | 35 (3.7) | 561 (3.9) | 57 (3.6) | 562 (2.8) |
| Turkey | 2 (1.0) | ~ ~ | 18 (3.5) | 452 (10.9) | 74 (3.9) | 450 (4.2) | 6 (1.8) | 457 (14.1) |
| United States | 2 (1.1) | ~ ~ | 49 (3.9) | 538 (5.1) | 40 (3.9) | 551 (6.0) | 9 (2.1) | 529 (10.4) |
| 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) |

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

Background data provided by teachers.

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

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

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

What Library Resources Are Available and How Are They Used?

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

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

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

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

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

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

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

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

Exhibit 6.27: Access to Libraries in School**ISC** 4th Grade
PIRLS 2001

| 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 (O,Q) | 46 (3.4) | 41 (3.7) | 11 (1.8) | 2 (0.8) | 96 (1.1) | 91 (1.7) | 23 (2.8) |
| Colombia | 14 (3.1) | 8 (2.7) | 37 (5.3) | 41 (4.3) | 72 (4.4) | 21 (3.2) | 26 (4.3) |
| Cyprus | 97 (1.3) | 1 (0.1) | 2 (1.3) | 0 (0.0) | 62 (5.5) | r 30 (5.9) | r 3 (1.9) |
| Czech Republic | 6 (2.2) | 14 (3.1) | 63 (4.0) | 18 (3.3) | 92 (2.3) | 71 (3.8) | 11 (2.9) |
| England | 71 (4.4) | 20 (3.9) | 9 (2.6) | 1 (0.0) | 91 (2.6) | 84 (3.3) | 4 (2.0) |
| France | 52 (5.0) | 29 (4.4) | 16 (3.7) | 2 (1.4) | 79 (4.1) | 64 (4.5) | 10 (2.5) |
| Germany | 45 (3.5) | 35 (4.0) | 19 (3.1) | 1 (0.7) | 53 (4.0) | 22 (3.0) | 1 (0.7) |
| Greece | 49 (4.9) | 18 (3.8) | 16 (2.4) | 17 (3.9) | 88 (3.3) | 22 (3.6) | 9 (2.8) |
| Hong Kong, SAR | 97 (1.5) | 1 (0.9) | 2 (1.2) | 0 (0.0) | 72 (4.3) | 70 (4.3) | 18 (3.6) |
| Hungary | 7 (1.9) | 41 (4.2) | 51 (4.0) | 2 (0.9) | 95 (1.3) | 92 (2.1) | 33 (3.5) |
| Iceland | r 8 (0.3) | 25 (0.4) | 63 (0.4) | 4 (0.1) | r 96 (0.2) | r 95 (0.2) | r 61 (0.4) |
| Iran, Islamic Rep. of | 13 (2.8) | 10 (3.2) | 21 (3.8) | 56 (4.8) | 81 (3.0) | 35 (4.5) | 10 (2.9) |
| Israel | 41 (4.4) | 31 (3.7) | 25 (4.1) | 3 (1.5) | 82 (3.5) | r 48 (4.6) | 1 (0.9) |
| Italy | 24 (3.4) | 32 (3.6) | 40 (3.7) | 5 (1.5) | 91 (2.1) | 58 (3.5) | 11 (2.3) |
| Kuwait | 10 (2.6) | 16 (2.5) | 50 (4.0) | 23 (2.9) | 100 (0.0) | r 58 (3.8) | r 70 (4.0) |
| Latvia | 15 (3.2) | 33 (4.5) | 42 (4.2) | 10 (2.8) | 99 (1.3) | 96 (1.8) | 40 (4.1) |
| Lithuania | 31 (4.1) | 33 (4.2) | 35 (4.0) | 1 (1.0) | 98 (0.6) | 89 (2.1) | 32 (4.2) |
| Macedonia, Rep. of | 5 (1.6) | 6 (2.0) | 46 (4.0) | 43 (4.0) | 92 (2.1) | 84 (2.8) | 4 (1.7) |
| Moldova, Rep. of | 13 (2.6) | 17 (3.6) | 54 (4.6) | 15 (3.1) | 100 (0.4) | 81 (3.5) | 12 (2.8) |
| Morocco | 7 (3.0) | 12 (3.4) | 33 (4.8) | 48 (5.1) | 21 (3.4) | 0 (0.0) | 8 (2.0) |
| Netherlands | 69 (4.7) | 17 (3.4) | 11 (3.4) | 2 (1.4) | 63 (4.9) | r 34 (4.7) | 1 (0.0) |
| New Zealand | 83 (3.2) | 16 (3.2) | 1 (0.6) | 0 (0.0) | 99 (0.4) | 97 (1.4) | 15 (2.9) |
| Norway | 12 (3.0) | 27 (4.0) | 58 (4.5) | 2 (1.5) | 98 (1.1) | 85 (3.5) | 9 (2.5) |
| Romania | 5 (2.0) | 10 (2.9) | 62 (4.0) | 23 (2.9) | 96 (1.3) | 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) |

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

Background data provided by schools.

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

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

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

Exhibit 6.28: Students' Use of Classroom LibrariesISC
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 Magazine 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) | s 8 (1.1) |
| Bulgaria | 34 (3.8) | 23 (3.6) | 8 (1.9) | 69 (3.7) | 89 (4.3) | 8 (2.0) | 2 (0.5) |
| Canada (O,Q) | 88 (2.6) | 64 (3.4) | 20 (2.4) | 16 (2.8) | 89 (2.3) | 250 (50.8) | 15 (2.0) |
| Colombia | 44 (4.6) | 22 (3.7) | 13 (3.2) | 65 (4.6) | 54 (6.0) | 26 (5.3) | r 9 (2.6) |
| Cyprus | 98 (1.0) | 9 (2.2) | 76 (4.1) | 15 (3.7) | 98 (1.6) | 53 (2.9) | 3 (0.6) |
| Czech Republic | 57 (4.2) | 35 (4.2) | 15 (3.3) | 50 (4.2) | 66 (6.2) | 17 (2.4) | 2 (0.6) |
| England | 82 (3.5) | 57 (4.7) | 21 (3.7) | 22 (3.8) | 87 (3.3) | 211 (37.6) | r 4 (1.5) |
| France | 92 (2.3) | 54 (4.0) | 30 (3.6) | 16 (3.0) | 85 (2.8) | r 84 (6.5) | r 14 (1.7) |
| Germany | 82 (2.1) | 37 (2.6) | 29 (2.7) | 35 (2.8) | 89 (2.0) | 51 (3.9) | 5 (1.0) |
| Greece | 61 (4.1) | 17 (3.8) | 22 (3.5) | 61 (4.3) | 97 (1.7) | 36 (4.9) | 4 (2.3) |
| Hong Kong, SAR | 96 (2.5) | 15 (3.1) | 45 (4.4) | 41 (4.7) | 99 (0.9) | s 167 (15.8) | r 5 (1.3) |
| Hungary | 64 (3.2) | 48 (4.0) | 6 (2.0) | 46 (4.0) | 82 (3.8) | 24 (2.5) | 2 (0.5) |
| Iceland | 46 (0.4) | 22 (0.3) | 21 (0.3) | 57 (0.4) | r 68 (0.6) | 16 (0.2) | 1 (0.0) |
| Iran, Islamic Rep. of | 32 (3.9) | 4 (1.5) | 19 (3.5) | 77 (3.6) | 97 (2.2) | 24 (5.2) | r 3 (0.7) |
| Israel | 78 (3.7) | 56 (4.3) | 17 (2.7) | 26 (4.0) | 80 (3.4) | r 28 (2.8) | s 6 (1.2) |
| Italy | 76 (2.8) | 18 (2.5) | 25 (3.2) | 57 (3.5) | 96 (1.7) | 45 (5.3) | s 7 (1.8) |
| Kuwait | 40 (3.5) | 3 (1.0) | 23 (3.1) | 74 (3.3) | s 81 (5.6) | r 6 (1.0) | r 4 (0.7) |
| Latvia | 67 (4.5) | 53 (4.6) | 6 (1.8) | 41 (4.3) | 82 (4.8) | 61 (9.5) | r 11 (2.3) |
| Lithuania | 82 (3.5) | 48 (4.5) | 19 (3.3) | 33 (4.3) | 95 (2.1) | 45 (4.4) | 5 (0.7) |
| Macedonia, Rep. of | 45 (3.6) | 13 (3.0) | 15 (3.1) | 72 (3.4) | 87 (3.8) | r 21 (4.8) | r 2 (1.1) |
| Moldova, Rep. of | 68 (3.8) | 42 (4.9) | 20 (3.7) | 38 (4.3) | 94 (2.7) | 40 (6.4) | 7 (1.6) |
| Morocco | 54 (5.4) | 9 (2.7) | 32 (5.1) | 59 (5.2) | r 87 (4.7) | 13 (1.7) | 6 (0.9) |
| Netherlands | 84 (3.5) | 58 (4.5) | 23 (3.7) | 19 (3.8) | r 16 (3.8) | r 86 (8.4) | r 3 (0.7) |
| New Zealand | 96 (1.6) | 86 (3.0) | 8 (2.5) | 6 (1.9) | 65 (4.4) | 63 (4.9) | 8 (1.4) |
| Norway | 54 (4.5) | 15 (3.2) | 33 (4.3) | 52 (4.5) | 79 (5.0) | 33 (5.8) | 4 (0.9) |
| Romania | 49 (4.2) | 22 (3.6) | 20 (2.8) | 58 (4.2) | 91 (3.5) | 24 (6.4) | 4 (0.7) |
| Russian Federation | 84 (2.5) | 64 (3.6) | 12 (2.1) | 24 (3.1) | 94 (2.9) | 77 (4.9) | 12 (1.4) |
| Scotland | 91 (2.5) | 57 (4.9) | 29 (4.1) | 13 (3.4) | 74 (4.5) | 104 (8.2) | 3 (0.5) |
| Singapore | 77 (3.4) | 45 (3.5) | 25 (3.4) | 30 (3.6) | 79 (3.7) | 51 (3.4) | 3 (0.5) |
| Slovak Republic | 64 (4.0) | 21 (3.3) | 23 (3.4) | 56 (4.2) | 82 (4.1) | 25 (4.2) | 3 (0.5) |
| Slovenia | 66 (4.3) | 45 (4.4) | 16 (3.3) | 39 (4.5) | 73 (4.8) | 21 (2.0) | 3 (0.4) |
| Sweden | 47 (2.9) | 33 (3.0) | 11 (2.0) | 56 (2.7) | 83 (3.5) | 49 (5.5) | r 2 (0.4) |
| Turkey | 93 (2.2) | 44 (4.4) | 45 (4.4) | 11 (2.5) | 100 (0.0) | 71 (3.5) | s 9 (1.3) |
| United States | 96 (1.3) | 85 (3.3) | 9 (1.9) | 7 (2.7) | 91 (2.5) | 219 (20.5) | 9 (1.1) |
| International Avg. | 69 (0.6) | 37 (0.6) | 22 (0.6) | 40 (0.6) | 82 (0.6) | 60 (2.1) | 6 (0.2) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.29: Frequency of Students' School Library Visits**ISC** 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 | 49 (5.0) | 7 (2.2) | 15 (3.8) | 13 (3.0) | 16 (4.6) |
| Bulgaria | 13 (2.6) | 13 (2.7) | 41 (3.7) | 33 (4.1) | 0 (0.0) |
| Canada (O,Q) | 3 (1.0) | 4 (1.5) | 81 (3.0) | 11 (2.5) | 0 (0.3) |
| Colombia | 25 (4.3) | 15 (3.3) | 21 (3.6) | 25 (4.2) | 15 (2.9) |
| Cyprus | 68 (4.2) | 0 (0.3) | 10 (3.0) | 10 (3.3) | 12 (3.3) |
| Czech Republic | 7 (2.5) | 3 (1.7) | 30 (3.4) | 47 (4.1) | 13 (2.8) |
| England | 7 (2.5) | 10 (3.1) | 50 (5.2) | 26 (4.4) | 7 (2.1) |
| France | 19 (3.7) | 6 (2.1) | 51 (4.3) | 16 (3.1) | 7 (2.5) |
| Germany | 53 (3.4) | 1 (0.6) | 19 (2.5) | 16 (2.2) | 11 (2.3) |
| Greece | 22 (3.1) | 4 (1.4) | 36 (4.1) | 29 (4.4) | 9 (2.5) |
| Hong Kong, SAR | 23 (3.9) | 6 (2.1) | 33 (4.8) | 24 (4.3) | 14 (2.8) |
| Hungary | 3 (1.4) | 11 (2.8) | 47 (4.1) | 38 (3.8) | 1 (0.5) |
| Iceland | 2 (0.1) | 27 (0.3) | 56 (0.4) | 14 (0.3) | 0 (0.1) |
| Iran, Islamic Rep. of | 25 (3.5) | 3 (1.2) | 42 (4.7) | 21 (2.6) | 9 (2.4) |
| Israel | 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 | 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) |

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

Background data provided by teachers.

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

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

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

Exhibit 6.30: Students' Overall Library Use in School*

ISC
4th Grade
PIRLS 2001

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

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

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

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

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

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.

How Are Computers Used for Reading Instruction?

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

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

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

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

Exhibit 6.31: Computer Availability and Instructional Use**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported | | | | Percentage of Students Whose Teachers Reported Instructional Uses at Least Monthly | | |
|-----------------------|--|---------------------|---------------------|----------------------|--|--|---|
| | Computers Not Available | Computers Available | | | Students Use Instructional Software to Develop Reading Skills and Strategies | Students Read Stories or Other Texts on the Computer | Students Write Stories or Other Texts on the Computer |
| | | In Classroom | Elsewhere in School | Have Internet Access | | | |
| Argentina | 70 (4.0) | 4 (1.9) | 26 (3.6) | 10 (2.4) | 10 (2.5) | 11 (2.3) | 19 (3.3) |
| Belize | r 95 (1.9) | r 2 (0.9) | r 2 (1.0) | r 1 (1.3) | r 1 (0.6) | r 0 (0.3) | r 1 (0.4) |
| Bulgaria | 81 (3.1) | 0 (0.0) | 18 (3.0) | 7 (2.1) | 3 (1.4) | 6 (2.0) | 5 (1.8) |
| Canada (O,Q) | 3 (1.0) | 81 (2.6) | 92 (1.8) | 93 (1.6) | 42 (2.7) | 60 (3.0) | 74 (3.1) |
| Colombia | 89 (2.5) | 1 (0.5) | 8 (2.1) | 4 (1.6) | 5 (1.7) | 5 (1.7) | 6 (1.9) |
| Cyprus | 70 (4.4) | 6 (2.8) | 28 (4.5) | 28 (4.4) | 10 (3.4) | 16 (3.6) | 24 (4.3) |
| Czech Republic | 38 (3.8) | r 11 (2.8) | 59 (4.0) | 43 (4.4) | 16 (3.3) | 13 (2.8) | 10 (2.9) |
| England | 1 (1.2) | r 88 (3.2) | 95 (2.1) | 86 (3.3) | 55 (4.7) | 56 (4.8) | 93 (2.2) |
| France | 17 (3.6) | r 41 (4.7) | r 76 (4.3) | 51 (4.8) | 29 (3.8) | 30 (3.9) | 62 (3.5) |
| Germany | 39 (3.0) | 45 (3.9) | r 45 (3.5) | 28 (3.0) | 32 (3.3) | 25 (2.9) | 35 (3.8) |
| Greece | 82 (3.3) | 0 (0.0) | 17 (3.3) | 9 (1.7) | 6 (2.8) | 8 (3.0) | 7 (2.9) |
| Hong Kong, SAR | 21 (4.2) | r 31 (4.5) | 75 (4.7) | 72 (4.6) | 28 (4.0) | 31 (4.1) | 7 (2.3) |
| Hungary | 61 (4.7) | 3 (1.5) | 36 (4.6) | 26 (3.8) | 4 (1.6) | 4 (1.4) | 10 (2.7) |
| Iceland | 8 (0.2) | 63 (0.4) | 90 (0.2) | 87 (0.3) | 53 (0.3) | 44 (0.4) | 73 (0.3) |
| Iran, Islamic Rep. of | 99 (0.7) | 0 (0.5) | 1 (0.5) | 0 (0.0) | 0 (0.1) | 0 (0.1) | 0 (0.1) |
| Israel | 51 (3.4) | r 27 (3.9) | 41 (3.6) | 33 (3.8) | 25 (4.0) | 31 (4.2) | 45 (3.9) |
| Italy | 37 (3.2) | r 5 (1.8) | 60 (3.1) | 37 (3.8) | 19 (2.9) | 19 (2.9) | 36 (3.4) |
| Kuwait | 96 (2.0) | 0 (0.0) | 3 (1.7) | 0 (0.0) | 4 (1.9) | 4 (1.9) | 3 (1.9) |
| Latvia | 63 (3.8) | r 2 (1.4) | 34 (3.9) | 26 (3.5) | 5 (1.8) | 8 (2.3) | 17 (3.2) |
| Lithuania | 76 (3.7) | 1 (1.0) | 20 (3.7) | 14 (3.2) | 4 (1.6) | 8 (2.4) | 9 (2.6) |
| Macedonia, Rep. of | 85 (3.2) | 2 (1.3) | 6 (2.0) | 2 (1.1) | 5 (1.7) | 5 (1.7) | 3 (1.3) |
| Moldova, Rep. of | r 86 (2.8) | r 1 (0.0) | r 5 (2.4) | r 0 (0.0) | r 0 (0.4) | r 2 (1.4) | r 0 (0.4) |
| Morocco | 76 (4.6) | r 1 (0.8) | r 5 (2.2) | r 1 (0.0) | 1 (1.0) | 1 (1.0) | 1 (1.0) |
| Netherlands | 3 (2.0) | r 90 (2.8) | s 92 (3.2) | 47 (4.6) | 29 (4.1) | 25 (3.9) | 50 (4.7) |
| New Zealand | 0 (0.2) | 94 (2.1) | r 85 (3.8) | 91 (2.7) | 44 (4.5) | 60 (4.6) | 96 (1.6) |
| Norway | 14 (3.2) | 58 (4.1) | 83 (3.2) | 71 (4.4) | 47 (3.9) | 27 (3.8) | 61 (4.3) |
| Romania | 74 (4.0) | r 1 (0.0) | 17 (3.4) | 5 (1.9) | 5 (2.1) | 10 (2.6) | 14 (3.1) |
| Russian Federation | 91 (2.3) | 0 (0.0) | 9 (2.3) | 1 (0.7) | 2 (1.0) | 4 (1.4) | 4 (2.2) |
| Scotland | 2 (1.3) | 96 (1.7) | r 81 (4.3) | 60 (4.0) | 49 (4.9) | 58 (5.0) | 80 (4.2) |
| Singapore | 9 (2.3) | 56 (4.2) | 88 (2.7) | 78 (2.9) | 56 (4.1) | 67 (3.4) | 55 (4.5) |
| Slovak Republic | 84 (3.0) | 0 (0.0) | 15 (2.9) | 5 (1.8) | 1 (0.5) | 3 (1.5) | 3 (1.5) |
| Slovenia | 32 (3.8) | 7 (2.2) | 66 (4.0) | 64 (3.9) | 28 (3.7) | 33 (3.8) | 33 (4.3) |
| Sweden | 1 (0.6) | 89 (2.6) | r 91 (2.0) | 93 (1.6) | 48 (3.5) | 46 (2.7) | 88 (1.5) |
| Turkey | 82 (3.4) | 2 (1.2) | 18 (3.3) | 9 (2.2) | 5 (2.2) | 7 (2.5) | 11 (1.8) |
| United States | 2 (1.1) | 92 (2.3) | 93 (2.4) | 92 (1.8) | 66 (4.1) | 60 (4.2) | 74 (3.8) |
| International Avg. | 50 (0.5) | 29 (0.4) | 45 (0.5) | 36 (0.5) | 21 (0.5) | 22 (0.5) | 32 (0.5) |

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

Background data provided by teachers.

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

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

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

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

| Countries | Percentage of Students Who Reported Ever Using a Computer | Percentage of Students Who Reported Using a Computer at Least Weekly | | |
|-----------------------|---|--|------------|---------------------|
| | | At Home | At School | At Some Other Place |
| Argentina | r 62 (2.0) | r 33 (1.8) | r 28 (2.4) | r 29 (1.6) |
| Belize | r 47 (3.6) | r 24 (2.4) | r 10 (1.6) | r 20 (1.5) |
| Bulgaria | 60 (2.1) | 21 (1.2) | r 10 (1.5) | 32 (1.4) |
| Canada (O,Q) | 94 (0.4) | 76 (0.8) | 69 (1.7) | 31 (1.0) |
| Colombia | 54 (3.2) | 18 (1.6) | 37 (3.4) | 19 (1.5) |
| Cyprus | 59 (1.7) | 44 (1.6) | 15 (1.7) | 19 (1.1) |
| Czech Republic | 75 (1.3) | 50 (1.4) | 18 (1.8) | 22 (1.0) |
| England | 97 (0.4) | 74 (1.0) | 67 (2.7) | 29 (1.0) |
| France | 95 (0.5) | 60 (1.0) | 38 (2.8) | 24 (0.9) |
| Germany | 85 (0.6) | 66 (0.8) | 17 (1.5) | 19 (0.7) |
| Greece | 62 (2.0) | 37 (1.8) | 13 (2.4) | 26 (1.2) |
| Hong Kong, SAR | 95 (0.5) | 61 (1.3) | 68 (2.6) | 19 (0.6) |
| Hungary | 77 (1.5) | 52 (1.2) | 28 (3.1) | 23 (1.0) |
| Iceland | 91 (0.5) | 69 (0.9) | 59 (0.8) | 28 (0.9) |
| Iran, Islamic Rep. of | 11 (1.1) | 7 (0.8) | 1 (0.3) | 5 (0.5) |
| Israel | 93 (0.6) | 78 (0.8) | 59 (2.6) | 43 (1.0) |
| Italy | 75 (1.2) | 53 (1.0) | 24 (2.5) | 17 (0.7) |
| Kuwait | r 64 (1.7) | s 48 (1.6) | s 9 (0.9) | s 23 (1.1) |
| Latvia | 58 (1.7) | 25 (1.2) | 17 (2.3) | 20 (0.9) |
| Lithuania | 53 (1.7) | 29 (1.3) | 7 (1.3) | 19 (1.0) |
| Macedonia, Rep. of | 60 (2.1) | 32 (1.7) | 8 (0.9) | 28 (1.4) |
| Moldova, Rep. of | r 21 (1.9) | r 6 (0.8) | r 5 (1.1) | r 7 (0.8) |
| Morocco | 32 (3.1) | r 18 (2.1) | r 9 (1.7) | r 12 (1.6) |
| Netherlands | 93 (0.5) | 76 (0.9) | 50 (2.9) | 24 (0.8) |
| New Zealand | 94 (0.6) | 70 (1.2) | 59 (2.2) | 38 (1.4) |
| Norway | 92 (0.7) | 70 (1.0) | 22 (2.3) | 27 (1.2) |
| Romania | 42 (2.4) | 18 (1.5) | 13 (2.3) | 17 (1.4) |
| Russian Federation | 37 (1.8) | 12 (0.7) | 6 (1.1) | 16 (0.8) |
| Scotland | 95 (0.7) | 68 (0.9) | 63 (3.0) | 34 (1.1) |
| Singapore | 94 (0.4) | 70 (0.7) | 39 (1.9) | 25 (0.8) |
| Slovak Republic | 54 (1.6) | 34 (1.2) | 5 (0.9) | 17 (0.9) |
| Slovenia | 78 (1.1) | 58 (1.2) | 16 (1.5) | 28 (1.2) |
| Sweden | 97 (0.3) | 75 (0.7) | 35 (2.0) | 25 (0.8) |
| Turkey | 44 (3.0) | 15 (1.3) | 22 (3.4) | 18 (1.3) |
| United States | 94 (0.5) | 71 (1.2) | 70 (2.2) | 32 (1.3) |
| International Avg. | 70 (0.3) | 46 (0.2) | 29 (0.4) | 23 (0.2) |

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

Background data provided by students.

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

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

A dash (–) indicates data are not available. A tilde (~) 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 HomeworkISC
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) | 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 (O,Q) | 51 (1.7) | 539 (2.7) | 25 (1.3) | 556 (3.3) | 19 (0.8) | 552 (4.3) | 6 (0.6) | 542 (7.2) | 0.5 (0.01) |
| Colombia | 65 (1.7) | 421 (4.1) | 22 (1.4) | 452 (7.5) | 10 (0.7) | 426 (7.7) | 3 (0.4) | 379 (13.4) | 0.8 (0.01) |
| Cyprus | 85 (0.9) | 501 (2.7) | 7 (0.5) | 470 (8.4) | 6 (0.7) | 462 (8.8) | 2 (0.2) | ~ ~ | 0.5 (0.01) |
| Czech Republic | 33 (2.9) | 537 (2.5) | 29 (2.0) | 539 (4.0) | 29 (1.8) | 536 (4.0) | 10 (1.4) | 546 (6.5) | 0.5 (0.01) |
| England | 36 (2.7) | 558 (4.7) | 35 (2.1) | 556 (4.0) | 22 (1.6) | 553 (4.8) | 7 (1.0) | 547 (10.0) | 0.5 (0.01) |
| France | 44 (2.3) | 522 (3.0) | 31 (1.7) | 536 (3.0) | 23 (1.6) | 525 (4.1) | 2 (0.4) | ~ ~ | 0.5 (0.01) |
| Germany | 30 (1.8) | 529 (3.3) | 30 (1.2) | 548 (2.1) | 37 (1.4) | 545 (2.3) | 3 (0.4) | 547 (8.7) | 0.4 (0.01) |
| Greece | 87 (1.2) | 531 (3.5) | 7 (0.9) | 509 (7.9) | 5 (0.6) | 468 (9.2) | 0 (0.1) | ~ ~ | 0.9 (0.01) |
| Hong Kong, SAR | 31 (1.0) | 525 (3.3) | 33 (1.0) | 539 (3.2) | 32 (1.1) | 529 (3.5) | 4 (0.4) | 501 (6.8) | 0.5 (0.01) |
| Hungary | 76 (1.7) | 543 (2.3) | 16 (1.3) | 549 (4.8) | 8 (0.8) | 546 (6.8) | 0 (0.2) | ~ ~ | 0.6 (0.01) |
| Iceland | 79 (0.8) | 514 (1.4) | 11 (0.7) | 527 (4.3) | 8 (0.4) | 508 (5.6) | 2 (0.2) | ~ ~ | 0.4 (0.01) |
| Iran, Islamic Rep. of | 73 (1.6) | 417 (5.0) | 14 (1.0) | 419 (6.1) | 12 (0.9) | 408 (6.5) | 1 (0.2) | ~ ~ | 0.9 (0.01) |
| Israel | 48 (1.3) | 500 (3.5) | 28 (0.9) | 529 (4.0) | 19 (0.9) | 527 (5.6) | 5 (0.5) | 524 (8.1) | 0.6 (0.01) |
| Italy | 60 (1.4) | 542 (3.0) | 27 (1.4) | 550 (3.1) | 12 (0.8) | 539 (4.7) | 1 (0.2) | ~ ~ | 0.5 (0.01) |
| Kuwait | 66 (1.4) | 400 (3.9) | 18 (0.9) | 407 (7.0) | 12 (0.7) | 405 (7.1) | 4 (0.4) | 400 (12.4) | 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) | ~ ~ | 0.5 (0.01) |
| Slovenia | 49 (1.9) | 492 (2.9) | 26 (1.3) | 514 (3.5) | 23 (1.2) | 511 (3.0) | 2 (0.3) | ~ ~ | 0.4 (0.01) |
| Sweden | 38 (2.0) | 557 (3.3) | 44 (1.8) | 566 (2.7) | 16 (1.2) | 558 (3.7) | 2 (0.3) | ~ ~ | 0.5 (0.01) |
| Turkey | 78 (1.6) | 452 (3.9) | 16 (1.3) | 447 (7.1) | 6 (0.5) | 423 (8.1) | 0 (0.1) | ~ ~ | 0.8 (0.01) |
| United States | 44 (2.5) | 540 (4.6) | 28 (1.7) | 547 (4.7) | 19 (1.2) | 547 (5.6) | 8 (1.4) | 546 (8.6) | 0.5 (0.01) |
| 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) |

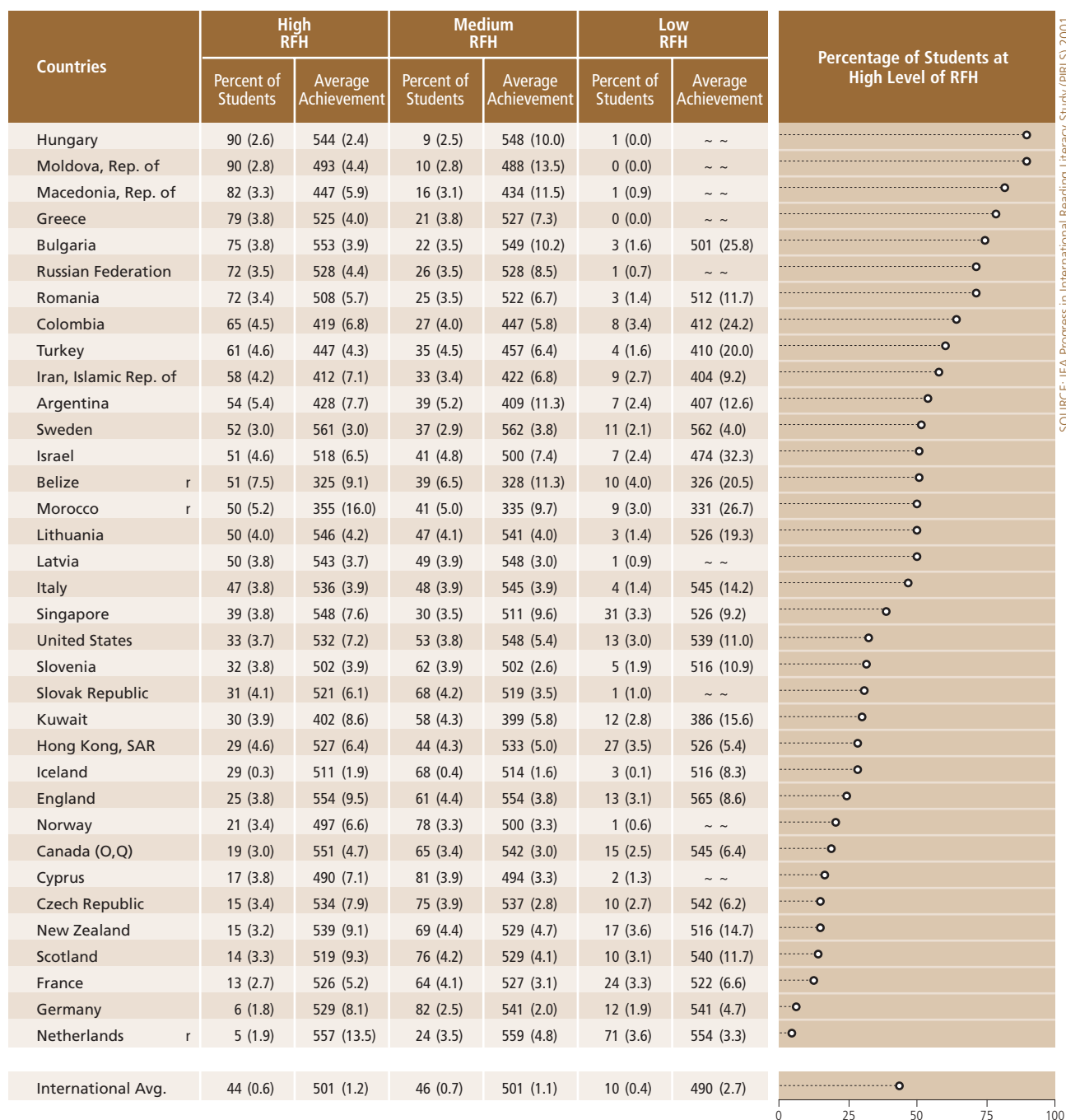
SOURCE: IEA Progress in International Reading Study (PIRLS) 2001.

Background data provided by students.

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

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

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

Exhibit 6.34: Index of Reading for Homework (RFH)**ISC****4th Grade
PIRLS 2001**

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

Index of Reading for Homework (RFH)

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

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

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

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.

How Do Teachers Assess Reading Progress?

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

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

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

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

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

Exhibit 6.35: Emphasis on Sources to Monitor Students' Progress in ReadingISC
4th Grade
PIRLS 2001

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

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

Background data provided by teachers.

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

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

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

Exhibit 6.36: Use of Portfolios (Collections of Students' Work) to Monitor Students' Progress in Reading**ISC** 4th Grade
PIRLS 2001

| 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 (O,Q) | 27 (3.2) | 550 (4.2) | 49 (3.5) | 546 (3.6) | 25 (2.6) | 539 (4.7) |
| Colombia | 49 (4.5) | 422 (7.5) | 31 (4.0) | 429 (8.9) | 19 (3.7) | 410 (9.8) |
| Cyprus | 17 (3.3) | 504 (7.5) | 59 (5.8) | 492 (3.9) | 24 (5.0) | 487 (6.3) |
| Czech Republic | 11 (2.5) | 549 (9.9) | 59 (4.3) | 535 (3.2) | 29 (3.9) | 537 (3.5) |
| England | 20 (4.3) | 542 (7.0) | 68 (4.6) | 558 (4.7) | 12 (3.1) | 553 (8.3) |
| France | 72 (3.2) | 526 (2.7) | 26 (3.0) | 521 (4.9) | 3 (1.5) | 520 (8.5) |
| Germany | 13 (2.2) | 525 (6.7) | 59 (2.9) | 540 (2.9) | 28 (3.1) | 546 (3.1) |
| Greece | 39 (4.7) | 525 (7.2) | 47 (4.4) | 525 (5.8) | 13 (2.9) | 530 (8.2) |
| Hong Kong, SAR | 14 (3.1) | 519 (8.4) | 34 (4.2) | 530 (5.8) | 52 (4.8) | 530 (4.4) |
| Hungary | 28 (3.3) | 536 (4.6) | 43 (4.3) | 549 (3.9) | 29 (3.2) | 545 (5.0) |
| Iceland | 22 (0.3) | 519 (2.3) | 64 (0.4) | 512 (1.5) | 14 (0.3) | 509 (3.6) |
| Iran, Islamic Rep. of | 19 (3.4) | 422 (11.7) | 40 (4.5) | 411 (8.9) | 41 (4.7) | 411 (8.1) |
| Israel | 27 (4.3) | 524 (8.0) | 64 (4.5) | 506 (5.1) | 9 (2.6) | 481 (22.3) |
| Italy | 31 (3.8) | 544 (5.3) | 41 (3.4) | 536 (3.9) | 28 (3.6) | 547 (4.2) |
| Kuwait | 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 | 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) |

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

Background data provided by teachers

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

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

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

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

| Countries | Percentage of Students for Whose Teachers Reported Using at Least Weekly | | | | | |
|-----------------------|--|---|---|----------------------------------|------------------------------|--|
| | Multiple-Choice Questions on Material Read | Short-Answer Written Questions on Material Read | Paragraph-Length Written Responses on Material Read | Listening to Students Read Aloud | Oral Questioning of Students | Students Giving an Oral Summary/ Report on 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 (O,Q) | 8 (2.0) | 55 (3.8) | 32 (3.0) | 55 (3.5) | 68 (3.2) | 33 (3.2) |
| Colombia | 59 (4.8) | 70 (4.6) | 53 (4.9) | 79 (4.0) | 83 (3.7) | 72 (4.5) |
| Cyprus | 28 (4.4) | 70 (4.8) | 56 (4.6) | 96 (2.3) | 99 (0.9) | 91 (3.0) |
| Czech Republic | 61 (4.6) | 77 (3.7) | 15 (3.0) | 90 (2.9) | 88 (3.0) | 38 (4.1) |
| England | 6 (2.4) | 33 (4.3) | 22 (3.9) | 66 (4.4) | 77 (4.2) | 38 (4.6) |
| France | 30 (3.6) | 58 (4.3) | 12 (2.6) | 65 (3.9) | 75 (2.9) | 46 (3.5) |
| Germany | r 8 (1.8) | 14 (2.2) | 4 (1.4) | 80 (2.8) | 62 (2.8) | 58 (3.1) |
| Greece | 48 (4.7) | 55 (5.1) | 48 (5.3) | 98 (1.3) | 99 (0.8) | 82 (3.4) |
| Hong Kong, SAR | 13 (2.8) | 34 (4.6) | 21 (3.6) | 58 (4.2) | 79 (4.2) | 33 (4.2) |
| Hungary | 70 (3.7) | 84 (2.8) | 29 (3.5) | 39 (4.0) | 39 (3.8) | 45 (3.6) |
| Iceland | 16 (0.3) | 41 (0.3) | 16 (0.2) | 73 (0.4) | r 27 (0.3) | 6 (0.1) |
| Iran, Islamic Rep. of | 28 (3.2) | 52 (4.6) | 50 (4.4) | 90 (2.4) | 94 (1.6) | 58 (4.7) |
| 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) |

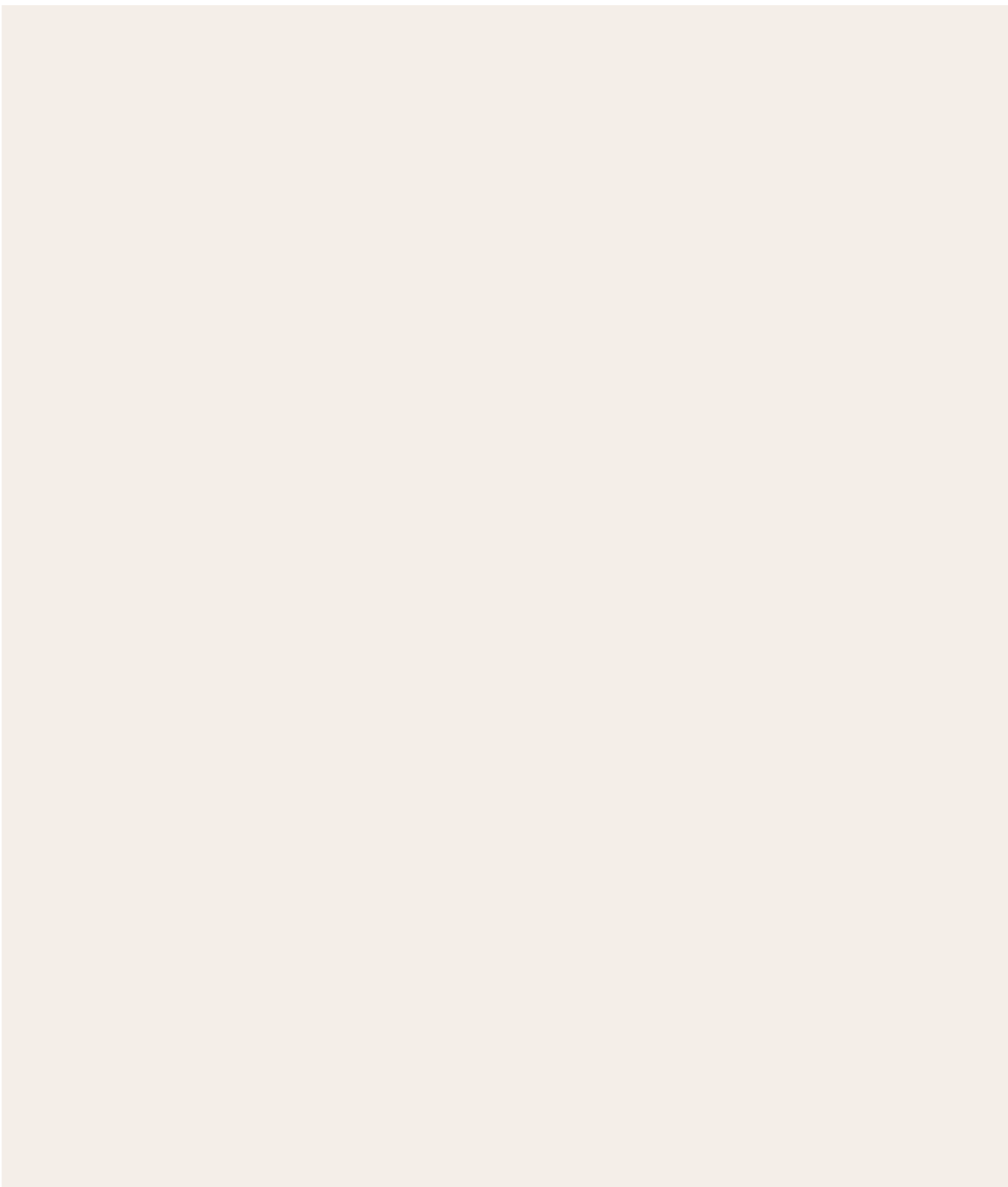
SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2001.

Background data provided by teachers.

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

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

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





Chapter 7

School Contexts

While the home environment provides enrichment opportunities and support for literacy, the school environment is the primary setting for formal learning and educational activities. School characteristics vary with regard to demographic factors such as school location and composition of the student body. These factors contribute to the general school environment and influence school policies and practices.

What Are the Schools' Demographic Characteristics?

Percentages of students in schools characterized by principals as urban, suburban, or rural are shown in Exhibit 7.1. On average, internationally, nearly half (46%) the students attended urban schools, with at least 70 percent of students in Argentina, Colombia, Italy, Lithuania, and Singapore enrolled in such schools. One-quarter of students internationally attended suburban schools, and 29 percent attended rural schools. Two-thirds or more of the students in Kuwait and Sweden were enrolled in suburban schools, and about half or more of the students in Belize, Germany, Moldova, The Netherlands, Norway, and Romania were in rural schools. In most countries, reading achievement is highest for those students in urban schools, lower in suburban schools, and even lower in rural schools. However, some countries exhibit different patterns in achievement. Average reading achievement in Argentina, Morocco, New Zealand, and Romania was higher for students in urban or rural schools than for those in suburban schools, whereas achievement in Canada (O,Q), Israel, Norway, the Russian Federation, and the United States was highest for students in suburban schools versus those in urban or rural schools.

Exhibit 7.2 presents principals' reports about the economic composition of their schools' student populations. Internationally, one-third of the students, on average, attended schools where less than 10 percent of the student body came from economically disadvantaged homes; more than half attended schools where less than 25 percent of students were from disadvantaged homes. In only four countries – Argentina, Colombia, Morocco, and Turkey – were more than half the students enrolled in schools where more than 50 percent of students came from disadvantaged homes.

On average, internationally, average achievement for students in schools with few students from economically disadvantaged homes was 40 scale-score points greater than that for students attending schools with more than half their student populations from disadvantaged homes (518 vs. 478). The range of this achievement difference varies greatly within countries. For example, differences in average achievement scores between students in schools with the fewest economically disadvantaged students and students in those schools with the majority range from less than 10 points in Kuwait, Moldova, Romania,

the Russian Federation, and Singapore to greater than 70 points in Colombia, Israel, New Zealand, and the United States.

In most countries, the language of the test was the same language that students first learned to speak when they were younger. Exhibit 7.3 details the language background of the schools' student populations in the primary grades. On average, internationally, more than three-quarters of students attended schools in which less than 10 percent of the student populations in primary grades did not speak the language of the test as their first language. In Belize, Hong Kong, Morocco, and Singapore, nearly half or more of the students attended schools where more than 50 percent of the student populations did not speak the language of the test as their first language. Although the language of instruction in Belize and Singapore was English, many of the students in these countries first learned to speak a language other than English and often continued to use their first language at home. In Morocco, the language of the test was Arabic, although there was a large French-speaking population.

Exhibit 7.1: Principals' Reports on Their Schools' Locations

ISC
4th Grade
PIRLS 2001

| Countries | Urban | | Suburban | | Rural | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 75 (4.5) | 427 (6.5) | 19 (4.0) | 395 (15.2) | 5 (2.0) | 412 (15.8) |
| Belize | 38 (6.3) | 361 (9.4) | 15 (6.5) | 318 (28.0) | 48 (6.2) | 296 (7.3) |
| Bulgaria | 64 (2.8) | 566 (4.2) | 12 (2.6) | 542 (17.1) | 24 (2.3) | 516 (9.1) |
| Canada (O,Q) | 40 (3.7) | 540 (3.7) | 39 (3.5) | 552 (3.4) | 21 (2.9) | 536 (4.3) |
| Colombia | 70 (3.0) | 435 (4.8) | 2 (1.1) | ~ ~ | 29 (3.0) | 388 (7.3) |
| Cyprus ^r | 44 (3.1) | 502 (5.3) | 25 (3.2) | 497 (7.5) | 30 (2.7) | 482 (4.9) |
| Czech Republic | 55 (3.4) | 540 (3.0) | 17 (3.3) | 537 (4.8) | 28 (3.2) | 529 (6.0) |
| England | 48 (5.0) | 542 (4.2) | 32 (4.6) | 557 (6.9) | 21 (3.7) | 574 (5.3) |
| France | 36 (4.1) | 525 (5.4) | 29 (4.2) | 523 (4.6) | 35 (3.6) | 527 (3.3) |
| Germany | 33 (2.8) | 523 (3.2) | 22 (2.9) | 546 (4.3) | 45 (3.8) | 547 (2.0) |
| Greece | -- | -- | -- | -- | -- | -- |
| Hong Kong, SAR | 52 (3.0) | 533 (3.8) | 46 (2.7) | 526 (5.2) | 2 (1.1) | ~ ~ |
| Hungary | 28 (2.5) | 566 (4.3) | 36 (2.3) | 546 (4.9) | 36 (1.7) | 526 (2.8) |
| Iceland ^r | 36 (0.4) | 519 (2.3) | 43 (0.4) | 511 (2.0) | 21 (0.3) | 499 (3.5) |
| Iran, Islamic Rep. of | 48 (3.7) | 444 (6.3) | 9 (2.4) | 413 (14.5) | 43 (3.1) | 375 (4.5) |
| Israel | 52 (3.8) | 525 (5.6) | 22 (3.2) | 531 (7.6) | 27 (3.3) | 461 (11.4) |
| Italy | 76 (3.2) | 543 (2.5) | 14 (2.5) | 537 (6.4) | 10 (2.2) | 529 (7.6) |
| Kuwait | 18 (2.7) | 399 (10.2) | 79 (2.7) | 399 (5.5) | 3 (0.5) | 426 (20.0) |
| Latvia | 44 (3.8) | 559 (3.8) | 18 (3.9) | 551 (4.6) | 37 (3.0) | 523 (3.2) |
| Lithuania | 71 (2.8) | 552 (3.2) | 6 (2.1) | 542 (11.8) | 23 (2.4) | 515 (4.9) |
| Macedonia, Rep. of | 57 (3.3) | 472 (5.3) | 15 (2.8) | 462 (15.3) | 28 (3.1) | 387 (9.6) |
| Moldova, Rep. of | 28 (3.3) | 515 (6.8) | 14 (3.8) | 494 (12.2) | 59 (3.7) | 480 (5.0) |
| Morocco | 41 (4.4) | 354 (9.1) | 21 (4.4) | 323 (10.8) | 39 (4.1) | 352 (24.9) |
| Netherlands | 31 (3.9) | 541 (6.6) | 22 (3.7) | 562 (3.9) | 47 (3.8) | 558 (3.2) |
| New Zealand | 38 (4.0) | 533 (6.1) | 40 (3.6) | 522 (6.4) | 23 (2.9) | 540 (8.9) |
| Norway | 19 (3.5) | 505 (7.7) | 26 (3.9) | 511 (6.2) | 56 (3.5) | 492 (3.5) |
| Romania | 50 (2.5) | 526 (5.1) | 4 (2.0) | 473 (15.9) | 45 (2.8) | 499 (8.2) |
| Russian Federation | 55 (2.5) | 539 (4.8) | 3 (1.9) | 553 (6.8) | 43 (2.4) | 512 (5.8) |
| Scotland | 35 (4.3) | 517 (6.3) | 39 (5.3) | 538 (6.6) | 26 (4.5) | 534 (6.9) |
| Singapore | 100 (0.0) | 528 (5.2) | 0 (0.0) | ~ ~ | 0 (0.0) | ~ ~ |
| Slovak Republic | 50 (3.7) | 531 (3.6) | 10 (2.5) | 522 (7.8) | 40 (3.1) | 501 (4.5) |
| Slovenia | 39 (3.3) | 509 (3.3) | 27 (3.7) | 499 (4.2) | 34 (3.0) | 495 (3.6) |
| Sweden | 15 (3.0) | 567 (5.4) | 66 (3.8) | 560 (2.8) | 18 (3.5) | 560 (5.4) |
| Turkey | 36 (4.2) | 464 (6.0) | 39 (4.1) | 455 (6.1) | 25 (3.5) | 423 (8.2) |
| United States | 32 (3.5) | 519 (6.6) | 35 (4.6) | 572 (4.6) | 33 (3.2) | 537 (7.3) |
| International Avg. | 46 (0.6) | 507 (0.9) | 25 (0.6) | 502 (1.8) | 29 (0.5) | 485 (1.5) |

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

Background data provided by schools.

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

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

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

Exhibit 7.2: Principals' Reports on Their Primary-Grade Students Coming from Economically Disadvantaged Homes
ISC 4th Grade
PIRLS 2001

| Countries | 0-10% Economically Disadvantaged | | 11-25% Economically Disadvantaged | | 26-50% Economically Disadvantaged | | More than 50% Economically Disadvantaged | |
|-----------------------|----------------------------------|---------------------|-----------------------------------|---------------------|-----------------------------------|---------------------|--|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 8 (2.9) | 418 (32.3) | 8 (2.3) | 476 (6.4) | 18 (3.5) | 437 (10.7) | 66 (4.6) | 403 (6.9) |
| Belize | 8 (2.7) | 355 (22.6) | 24 (6.1) | 339 (16.6) | 30 (7.0) | 333 (17.1) | 39 (4.3) | 301 (8.5) |
| Bulgaria | 18 (2.4) | 582 (6.2) | 23 (2.9) | 571 (6.1) | 29 (3.5) | 552 (6.6) | 31 (3.5) | 516 (8.0) |
| Canada (O,Q) | 48 (3.9) | 556 (3.1) | 28 (3.4) | 541 (3.6) | 13 (1.9) | 530 (4.6) | 11 (2.6) | 515 (7.1) |
| Colombia | 10 (2.6) | 480 (19.2) | 5 (1.4) | 440 (17.1) | 14 (3.8) | 449 (8.6) | 71 (4.1) | 407 (5.2) |
| Cyprus | 47 (5.2) | 503 (4.5) | 29 (5.4) | 496 (6.1) | 16 (4.0) | 478 (6.1) | 9 (2.8) | 480 (8.9) |
| Czech Republic | 30 (4.2) | 548 (5.1) | 25 (4.3) | 534 (4.1) | 28 (4.6) | 531 (5.5) | 16 (3.6) | 532 (6.2) |
| England | 34 (4.2) | 578 (5.2) | 34 (4.5) | 557 (5.6) | 18 (3.5) | 532 (7.3) | 13 (2.9) | 511 (5.1) |
| France | 54 (3.9) | 537 (3.4) | 23 (3.8) | 532 (3.9) | 13 (3.3) | 505 (5.1) | 10 (2.3) | 476 (10.8) |
| Germany | 46 (4.0) | 547 (2.1) | 37 (4.0) | 543 (3.3) | 13 (2.9) | 515 (8.1) | 4 (1.8) | 504 (11.5) |
| Greece | 23 (3.7) | 549 (6.6) | 14 (3.4) | 521 (8.6) | 20 (3.8) | 514 (8.2) | 42 (4.7) | 517 (4.2) |
| Hong Kong, SAR | 27 (3.6) | 536 (4.5) | 20 (3.5) | 528 (6.3) | 28 (4.7) | 533 (6.2) | 25 (4.0) | 518 (7.6) |
| Hungary | 23 (3.5) | 566 (5.4) | 41 (3.9) | 550 (3.8) | 29 (3.4) | 527 (4.4) | 7 (1.6) | 522 (9.0) |
| Iceland | 89 (0.2) | 514 (1.5) | 9 (0.2) | 499 (5.5) | 2 (0.0) | ~ ~ | 0 (0.0) | ~ ~ |
| Iran, Islamic Rep. of | 25 (4.1) | 457 (9.5) | 10 (2.8) | 439 (8.2) | 22 (3.5) | 411 (10.7) | 43 (4.3) | 385 (5.0) |
| Israel | 22 (3.6) | 561 (4.7) | 29 (4.0) | 508 (9.2) | 32 (3.6) | 486 (8.6) | 17 (3.3) | 472 (12.6) |
| Italy | 56 (3.5) | 547 (3.0) | 30 (3.2) | 536 (4.7) | 12 (2.3) | 523 (6.5) | 3 (1.0) | 529 (30.5) |
| Kuwait | 67 (4.1) | 400 (6.6) | 22 (3.6) | 399 (11.6) | 5 (1.8) | 386 (30.9) | 7 (0.2) | 403 (10.1) |
| Latvia | 12 (2.4) | 562 (8.0) | 50 (3.6) | 548 (3.1) | 23 (3.5) | 534 (5.4) | 16 (2.7) | 525 (5.8) |
| Lithuania | 16 (3.1) | 574 (3.9) | 36 (4.2) | 547 (4.7) | 32 (3.8) | 535 (4.7) | 16 (2.1) | 523 (5.8) |
| Macedonia, Rep. of | 13 (2.7) | 476 (12.6) | 18 (3.3) | 456 (18.3) | 31 (4.2) | 438 (10.0) | 37 (4.5) | 424 (9.4) |
| Moldova, Rep. of | 17 (2.8) | 500 (11.0) | 26 (4.1) | 490 (10.3) | 26 (3.7) | 480 (8.6) | 31 (4.0) | 494 (6.9) |
| Morocco | 9 (2.9) | 345 (10.8) | 7 (2.0) | 329 (18.7) | 23 (4.3) | 320 (11.3) | 61 (4.6) | 357 (15.8) |
| Netherlands | 59 (4.6) | 560 (3.3) | 25 (4.1) | 554 (3.9) | 8 (2.7) | 547 (7.1) | 8 (2.5) | 517 (12.3) |
| New Zealand | 46 (3.4) | 552 (5.3) | 24 (3.8) | 540 (8.0) | 12 (2.4) | 507 (9.5) | 18 (2.5) | 478 (6.6) |
| Norway | 85 (3.9) | 500 (3.8) | 12 (3.5) | 496 (9.0) | 3 (1.7) | 495 (24.7) | 0 (0.0) | ~ ~ |
| Romania | 6 (1.7) | 501 (23.6) | 17 (3.4) | 529 (11.0) | 35 (4.0) | 518 (8.7) | 42 (4.8) | 502 (6.7) |
| Russian Federation | 22 (2.9) | 533 (8.9) | 28 (3.7) | 524 (7.0) | 30 (3.8) | 530 (7.7) | 20 (3.4) | 525 (6.2) |
| Scotland | 38 (4.0) | 557 (5.4) | 25 (4.6) | 524 (8.1) | 16 (2.9) | 509 (9.7) | 21 (4.3) | 494 (5.1) |
| Singapore | 66 (3.7) | 541 (6.3) | 20 (3.0) | 487 (11.6) | 10 (2.1) | 523 (16.1) | 3 (1.1) | 495 (19.7) |
| Slovak Republic | 18 (3.2) | 531 (5.4) | 29 (3.8) | 521 (5.1) | 31 (4.1) | 518 (5.9) | 22 (3.7) | 503 (7.5) |
| Slovenia | 34 (4.3) | 504 (3.6) | 50 (4.5) | 501 (3.2) | 15 (3.2) | 497 (6.0) | 1 (0.8) | ~ ~ |
| Sweden | 46 (4.4) | 567 (2.5) | 32 (4.2) | 562 (4.3) | 13 (2.9) | 558 (6.1) | 9 (2.7) | 527 (7.9) |
| Turkey | 5 (1.1) | 508 (17.0) | 14 (3.0) | 495 (8.7) | 21 (3.5) | 448 (7.0) | 60 (4.2) | 434 (3.7) |
| United States | 25 (3.8) | 578 (6.4) | 20 (4.7) | 565 (4.9) | 19 (4.1) | 548 (6.3) | 36 (3.9) | 505 (4.3) |
| International Avg. | 33 (0.6) | 518 (1.8) | 24 (0.6) | 505 (1.5) | 20 (0.6) | 493 (1.8) | 23 (0.6) | 478 (2.4) |

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

Background data provided by schools.

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

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

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

Exhibit 7.3: Principals' Reports on Their Primary-Grade Students Not Speaking the Language of the Test as Their First Language
ISC 4th Grade
PIRLS 2001

| Countries | | 0-10% First Language Not Language of Test | | 11-25% First Language Not Language of Test | | 26-50% First Language Not Language of Test | | More than 50% First Language Not Language of Test | |
|-----------------------|---|---|---------------------|--|---------------------|--|---------------------|---|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | r | 97 (1.7) | 428 (6.4) | 2 (1.5) | ~ ~ | 1 (0.0) | ~ ~ | 0 (0.0) | ~ ~ |
| Belize | | 23 (5.5) | 341 (16.1) | 13 (6.0) | 318 (11.5) | 7 (3.2) | 300 (17.0) | 58 (8.2) | 323 (11.1) |
| Bulgaria | | 61 (3.9) | 569 (3.9) | 9 (2.4) | 543 (9.3) | 7 (2.2) | 529 (13.1) | 23 (3.2) | 509 (12.2) |
| Canada (O,Q) | | 80 (2.8) | 548 (2.6) | 9 (1.9) | 529 (6.7) | 6 (1.7) | 525 (9.2) | 4 (1.3) | 514 (10.3) |
| Colombia | r | 93 (2.6) | 425 (5.2) | 0 (0.3) | ~ ~ | 1 (0.0) | ~ ~ | 6 (2.5) | 444 (56.7) |
| Cyprus | r | 96 (1.0) | 495 (3.3) | 3 (0.9) | 483 (19.4) | 0 (0.0) | ~ ~ | 0 (0.4) | ~ ~ |
| Czech Republic | | 95 (1.9) | 538 (2.5) | 2 (1.4) | ~ ~ | 1 (0.6) | ~ ~ | 2 (1.3) | ~ ~ |
| England | | 88 (2.7) | 558 (3.8) | 3 (1.4) | 546 (15.6) | 4 (1.8) | 549 (9.7) | 6 (1.8) | 499 (9.3) |
| France | | 89 (2.8) | 529 (2.8) | 9 (2.7) | 493 (7.2) | 0 (0.2) | ~ ~ | 2 (1.2) | ~ ~ |
| Germany | | 68 (3.6) | 545 (2.4) | 18 (3.2) | 536 (5.0) | 10 (2.6) | 522 (6.9) | 4 (1.6) | 491 (7.6) |
| Greece | | 83 (3.2) | 524 (4.2) | 15 (2.7) | 534 (7.7) | 2 (1.7) | ~ ~ | 0 (0.0) | ~ ~ |
| Hong Kong, SAR | | 12 (2.9) | 538 (6.3) | 0 (0.0) | ~ ~ | 0 (0.0) | ~ ~ | 88 (2.9) | 527 (3.3) |
| Hungary | | 94 (1.9) | 544 (2.5) | 1 (0.4) | ~ ~ | 0 (0.0) | ~ ~ | 5 (1.9) | 559 (12.3) |
| Iceland | r | 98 (0.1) | 512 (1.3) | 0 (0.0) | ~ ~ | 0 (0.0) | ~ ~ | 2 (0.0) | ~ ~ |
| Iran, Islamic Rep. of | | 54 (5.0) | 426 (7.4) | 9 (3.3) | 390 (12.6) | 8 (2.3) | 410 (10.5) | 29 (4.4) | 393 (9.5) |
| Israel | | 59 (4.1) | 530 (4.8) | 18 (3.2) | 496 (12.7) | 8 (2.5) | 507 (15.4) | 15 (2.4) | 431 (10.6) |
| Italy | | 95 (1.7) | 542 (2.4) | 3 (1.3) | 558 (9.3) | 1 (0.8) | ~ ~ | 1 (0.8) | ~ ~ |
| Kuwait | r | 91 (2.7) | 402 (5.8) | 2 (1.1) | ~ ~ | 0 (0.0) | ~ ~ | 7 (2.4) | 400 (27.2) |
| Latvia | | 87 (2.5) | 544 (2.4) | 8 (2.2) | 547 (7.0) | 4 (0.8) | 530 (12.1) | 1 (1.3) | ~ ~ |
| Lithuania | | 92 (2.5) | 543 (2.8) | 4 (1.9) | 557 (10.8) | 0 (0.0) | ~ ~ | 4 (1.6) | 525 (12.4) |
| Macedonia, Rep. of | r | 54 (3.5) | 467 (8.4) | 11 (2.9) | 455 (14.7) | 8 (3.0) | 396 (15.8) | 27 (3.5) | 394 (10.9) |
| Moldova, Rep. of | r | 82 (3.4) | 486 (4.4) | 7 (2.4) | 516 (12.9) | 3 (1.4) | 453 (25.7) | 8 (2.4) | 522 (18.8) |
| Morocco | r | 39 (5.0) | 334 (12.2) | 7 (2.8) | 439 (32.2) | 9 (3.2) | 363 (14.3) | 44 (4.8) | 319 (13.4) |
| Netherlands | | 84 (3.3) | 560 (2.3) | 6 (2.0) | 537 (11.4) | 4 (1.6) | 529 (9.6) | 7 (2.3) | 521 (16.4) |
| New Zealand | | 78 (3.2) | 537 (4.1) | 14 (2.7) | 517 (11.0) | 5 (1.9) | 496 (18.3) | 2 (1.2) | ~ ~ |
| Norway | | 89 (2.9) | 500 (3.0) | 8 (2.8) | 501 (11.4) | 3 (1.6) | 475 (11.1) | 0 (0.0) | ~ ~ |
| Romania | | 83 (3.7) | 513 (4.4) | 10 (3.2) | 524 (20.8) | 2 (1.3) | ~ ~ | 5 (2.1) | 530 (25.9) |
| Russian Federation | | 77 (4.2) | 534 (4.0) | 7 (1.7) | 493 (22.2) | 4 (1.4) | 542 (20.8) | 13 (2.4) | 505 (14.0) |
| Scotland | | 96 (2.1) | 528 (3.9) | 3 (1.9) | 522 (26.7) | 1 (0.9) | ~ ~ | 0 (0.0) | ~ ~ |
| Singapore | | 21 (3.0) | 534 (13.3) | 13 (2.8) | 551 (16.3) | 19 (3.6) | 548 (10.4) | 47 (4.1) | 511 (8.0) |
| Slovak Republic | | 82 (2.6) | 521 (3.1) | 5 (1.9) | 497 (8.6) | 4 (1.8) | 480 (40.8) | 9 (1.5) | 523 (13.3) |
| Slovenia | | 84 (3.4) | 502 (2.2) | 8 (2.4) | 495 (6.2) | 6 (2.2) | 510 (10.3) | 2 (1.1) | ~ ~ |
| Sweden | | 76 (3.8) | 567 (2.2) | 11 (2.7) | 555 (4.8) | 4 (1.7) | 532 (9.8) | 8 (2.6) | 527 (8.8) |
| Turkey | | 74 (3.5) | 454 (4.3) | 4 (1.7) | 445 (21.9) | 3 (1.1) | 417 (6.7) | 19 (3.1) | 450 (10.1) |
| United States | | 79 (3.0) | 549 (4.1) | 12 (2.4) | 540 (12.1) | 5 (1.7) | 514 (15.0) | 5 (1.5) | 484 (7.6) |
| International Avg. | | 76 (0.5) | 505 (1.0) | 7 (0.4) | 504 (2.5) | 4 (0.3) | 482 (3.2) | 13 (0.4) | 474 (3.1) |

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

Background data provided by schools.

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

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

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

What Is the Role of the School Principal?

PIRLS asked school principals to describe the percentage of time they spent on various school-related activities on a typical day. The response categories included curriculum and pedagogy development, staff management and development, administrative duties, parent and community relations, teaching, and other responsibilities. Exhibit 7.4 summarizes the principals' reports of the amount of time spent on these activities. On average, internationally, principals' responsibilities were divided rather evenly across the categories, with the least amount of time spent in the miscellaneous "other" category (9%). Almost one-quarter of time reported internationally was spent on administrative duties. Principals in France and Germany reported spending more than 40 percent of their time teaching, the most of any of the PIRLS countries. In Bulgaria, principals spent more than one-third of their time developing curriculum and pedagogy for their schools.

Exhibit 7.4: Principals' Time Spent on Various School-Related Activities**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Time | | | | | |
|-----------------------|--|-----------------------------------|-----------------------|--------------------------------|------------|------------|
| | Developing Curriculum and Pedagogy for Your School | Managing Staff/ Staff Development | Administrative Duties | Parent and Community Relations | Teaching | Other |
| Argentina | 21 (1.2) | 23 (1.0) | 20 (1.5) | 17 (0.8) | 15 (1.1) | 4 (0.5) |
| Belize | r 20 (2.2) | r 19 (1.3) | r 20 (1.2) | r 11 (0.7) | r 25 (2.5) | r 5 (0.7) |
| Bulgaria | 34 (1.0) | 10 (0.4) | 23 (1.0) | 15 (0.6) | 12 (0.7) | 7 (0.5) |
| Canada (O,Q) | 12 (0.6) | 19 (0.6) | 33 (1.1) | 20 (0.8) | 4 (0.6) | 12 (1.2) |
| Colombia | r 23 (1.4) | r 19 (1.0) | r 16 (1.2) | r 18 (1.0) | r 18 (2.3) | r 6 (0.7) |
| Cyprus | 15 (0.8) | 19 (0.9) | 17 (0.8) | 13 (0.5) | 28 (0.8) | 9 (1.0) |
| Czech Republic | 14 (0.6) | 22 (0.9) | 28 (1.1) | 10 (0.6) | 18 (0.9) | 8 (0.5) |
| England | 18 (1.1) | 15 (0.7) | 34 (1.6) | 11 (0.5) | 15 (1.3) | 7 (0.8) |
| France | 7 (0.7) | 5 (0.5) | 23 (1.4) | 15 (0.9) | 47 (2.0) | 4 (0.8) |
| Germany | r 8 (0.4) | r 11 (0.4) | r 22 (0.9) | r 12 (0.5) | r 43 (1.3) | r 5 (0.5) |
| Greece | 17 (0.9) | 21 (1.0) | 17 (0.9) | 17 (0.7) | 24 (1.3) | 4 (0.5) |
| Hong Kong, SAR | 21 (1.0) | 22 (0.7) | 29 (1.8) | 15 (0.6) | 5 (0.5) | 8 (0.6) |
| Hungary | 21 (0.9) | 15 (0.6) | 21 (0.8) | 15 (0.5) | 15 (0.7) | 13 (0.9) |
| Iceland | r 12 (0.1) | r 32 (0.1) | r 19 (0.1) | r 15 (0.1) | r 9 (0.1) | r 12 (0.1) |
| Iran, Islamic Rep. of | 21 (1.0) | 22 (1.1) | 10 (0.8) | 24 (1.2) | 12 (1.1) | 11 (0.7) |
| Israel | 25 (1.0) | 22 (0.8) | 16 (0.8) | 18 (0.8) | 14 (0.6) | 6 (0.9) |
| Italy | 19 (0.8) | 25 (0.8) | 27 (1.1) | 21 (0.6) | 3 (0.6) | 5 (0.5) |
| Kuwait | x x | x x | x x | x x | x x | x x |
| Latvia | 13 (0.8) | 22 (0.8) | 22 (1.1) | 12 (0.5) | 20 (1.1) | 12 (0.7) |
| Lithuania | 25 (1.1) | 20 (0.8) | 19 (1.0) | 14 (0.6) | 16 (1.1) | 8 (0.7) |
| Macedonia, Rep. of | 25 (1.3) | 17 (0.7) | 15 (0.8) | 12 (0.5) | 24 (1.3) | 7 (0.8) |
| Moldova, Rep. of | 17 (0.7) | 33 (1.2) | 13 (0.9) | 13 (0.6) | 17 (0.8) | 8 (0.8) |
| Morocco | s 17 (1.5) | s 32 (2.1) | s 15 (1.8) | s 17 (1.0) | s 6 (0.7) | s 12 (1.8) |
| Netherlands | r 13 (0.7) | r 15 (0.6) | r 31 (1.6) | r 11 (0.6) | r 15 (1.6) | r 15 (1.3) |
| New Zealand | 17 (0.8) | 18 (0.8) | 34 (1.3) | 14 (0.8) | 10 (1.2) | 6 (0.8) |
| Norway | 15 (0.8) | 19 (1.0) | 36 (1.8) | 12 (0.7) | 10 (1.3) | 9 (0.8) |
| Romania | 19 (0.9) | 18 (0.8) | 15 (0.8) | 11 (0.6) | 31 (1.8) | 6 (0.4) |
| Russian Federation | 18 (0.8) | 21 (0.6) | 18 (0.8) | 14 (0.5) | 17 (1.1) | 12 (0.8) |
| Scotland | 18 (1.0) | 13 (0.6) | 34 (1.8) | 15 (0.9) | 13 (1.6) | 8 (1.3) |
| Singapore | 17 (0.7) | 29 (0.8) | 24 (1.0) | 16 (0.6) | 5 (0.4) | 9 (0.5) |
| Slovak Republic | 15 (0.6) | 26 (0.8) | 19 (0.9) | 13 (0.5) | 18 (0.7) | 8 (0.5) |
| Slovenia | 18 (0.7) | 23 (1.0) | 31 (1.2) | 14 (0.6) | 6 (0.5) | 8 (0.7) |
| ^a Sweden | 10 (0.6) | 18 (1.0) | 21 (0.9) | 10 (0.5) | 4 (0.9) | 37 (1.1) |
| Turkey | 12 (0.8) | 17 (0.9) | 18 (1.0) | 18 (0.6) | 28 (1.1) | 7 (0.6) |
| United States | 15 (0.9) | 23 (1.2) | 28 (1.3) | 19 (1.0) | 5 (0.7) | 10 (1.5) |
| International Avg. | 17 (0.2) | 20 (0.2) | 23 (0.2) | 15 (0.1) | 16 (0.2) | 9 (0.1) |

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

Background data provided by schools.

^a For Sweden, "Other" is a combination of three categories – meetings and conferences, student contacts, and other 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.

How Often Do Teachers Collaborate or Participate in Workshops or Seminars?

The percentages of students in schools with an official policy to promote teacher collaboration are presented in Exhibit 7.5. In almost half the countries, 75 percent or more of the students attended schools with an official policy. Exhibit 7.6 shows teachers' reports of how often they met with one another to discuss instruction. Regardless of whether their schools have official policies, most students had teachers who met at least once a month to discuss instruction. It is interesting to note that in Cyprus, Israel, Kuwait, and Norway, where more than 85 percent of students attended schools with official teacher collaboration policies, an overwhelming majority (90% or more) of students had teachers that met once a week or more to discuss instruction. However, in England and New Zealand, more than 85 percent of students had teachers that met once a week or more, but less than half the students attended schools with official teacher collaboration policies. Internationally, on average, most students (60%) had teachers who met once a week or once a month to discuss instruction.

As shown in Exhibit 7.7, most students had teachers who met to plan reading curriculum or teaching approaches more than once or twice a year. In Bulgaria, Kuwait, Macedonia, and Norway, teachers of more than 60 percent of students reported meeting at least once a week to plan curriculum or instruction. More than 95 percent of students in the Eastern European countries of Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Macedonia, Moldova, Romania, the Russian Federation, and the Slovak Republic had teachers who collaborated once or twice a year or more.

Teachers' reports of participation in workshops or seminars are shown in Exhibit 7.8. On average, internationally, about three-quarters of students had teachers who spent 15 hours or fewer in workshops or seminars during the past two years. Half or more of the students in Bulgaria, France, Iran, and Kuwait had teachers who spent no time in workshops or seminars.

Exhibit 7.5: Schools' Policies on Teacher Collaboration**ISC** 4th Grade
PIRLS 2001

| Countries | School Has Official Policy to Promote Teacher Collaboration | | | |
|-----------------------|---|---------------------|---------------------|---------------------|
| | Yes | | No | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 52 (4.7) | 429 (9.0) | 48 (4.7) | 407 (8.0) |
| Belize | 65 (6.8) | 325 (6.0) | 35 (6.8) | 328 (10.3) |
| Bulgaria | 68 (3.5) | 556 (4.5) | 32 (3.5) | 540 (6.2) |
| Canada (O,Q) | 42 (3.7) | 542 (3.6) | 58 (3.7) | 546 (3.2) |
| Colombia | 80 (3.8) | 422 (4.4) | 20 (3.8) | 423 (15.3) |
| Cyprus | 94 (2.3) | 495 (3.3) | 6 (2.3) | 502 (19.1) |
| Czech Republic | 60 (3.6) | 540 (2.8) | 40 (3.6) | 532 (4.2) |
| England | 36 (4.7) | 561 (5.7) | 64 (4.7) | 550 (4.8) |
| France | 65 (4.9) | 522 (3.3) | 35 (4.9) | 529 (4.5) |
| Germany | 53 (4.0) | 536 (3.0) | 47 (4.0) | 542 (2.7) |
| Greece | 86 (3.4) | 526 (3.7) | 14 (3.4) | 518 (11.4) |
| Hong Kong, SAR | 73 (3.8) | 528 (3.9) | 27 (3.8) | 530 (4.7) |
| Hungary | 81 (3.1) | 546 (2.4) | 19 (3.1) | 538 (5.2) |
| Iceland | 86 (0.3) | 512 (1.4) | 14 (0.3) | 514 (3.5) |
| Iran, Islamic Rep. of | 61 (3.9) | 410 (5.6) | 39 (3.9) | 416 (8.5) |
| Israel | 99 (1.3) | 507 (3.0) | 1 (1.3) | ~ ~ |
| Italy | 98 (1.1) | 541 (2.4) | 2 (1.1) | ~ ~ |
| Kuwait | 85 (2.9) | 402 (4.2) | 15 (2.9) | 378 (13.9) |
| Latvia | 83 (2.9) | 545 (2.8) | 17 (2.9) | 542 (5.6) |
| Lithuania | 77 (3.0) | 547 (3.2) | 23 (3.0) | 531 (6.1) |
| Macedonia, Rep. of | 92 (2.5) | 437 (5.0) | 8 (2.5) | 477 (17.5) |
| Moldova, Rep. of | 91 (2.9) | 491 (4.1) | 9 (2.9) | 495 (14.5) |
| Morocco | 71 (4.5) | 346 (8.8) | 29 (4.5) | 345 (26.1) |
| Netherlands | 60 (5.0) | 554 (3.7) | 40 (5.0) | 554 (4.0) |
| New Zealand | 41 (4.4) | 534 (6.2) | 59 (4.4) | 526 (4.9) |
| Norway | 86 (3.8) | 499 (3.2) | 14 (3.8) | 503 (9.5) |
| Romania | 85 (2.5) | 515 (5.0) | 15 (2.5) | 496 (13.1) |
| Russian Federation | 98 (0.9) | 528 (4.4) | 2 (0.9) | ~ ~ |
| Scotland | 31 (4.2) | 533 (8.5) | 69 (4.2) | 525 (3.8) |
| Singapore | 79 (3.3) | 521 (5.9) | 21 (3.3) | 554 (9.2) |
| Slovak Republic | 63 (4.0) | 521 (3.9) | 37 (4.0) | 513 (5.5) |
| Slovenia | 97 (1.5) | 501 (2.1) | 3 (1.5) | 516 (5.3) |
| Sweden | 71 (4.1) | 561 (2.7) | 29 (4.1) | 563 (4.2) |
| Turkey | 74 (3.8) | 453 (4.0) | 26 (3.8) | 440 (6.3) |
| United States | 51 (3.8) | 535 (6.0) | 49 (3.8) | 552 (4.6) |
| International Avg. | 72 (0.6) | 501 (0.8) | 28 (0.6) | 498 (1.7) |

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

Background data provided by schools.

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

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

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

Exhibit 7.6: Teachers Meet to Discuss Instruction

ISC
4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Meet to Discuss Instruction | | | | | | | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|------------------------|---------------------|
| | More than Once a Week | | Once a Week | | Once a Month | | Less than Once a Month | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 30 (3.6) | 441 (9.4) | 28 (4.6) | 410 (11.9) | 24 (4.4) | 422 (14.5) | 18 (3.8) | 393 (12.4) |
| Belize | 6 (4.3) | 389 (25.1) | 38 (6.3) | 323 (11.0) | 35 (6.8) | 330 (15.3) | 22 (4.1) | 308 (11.4) |
| Bulgaria | 16 (2.8) | 546 (15.6) | 13 (2.9) | 551 (12.8) | 45 (3.7) | 554 (5.1) | 26 (3.8) | 548 (5.8) |
| Canada (O,Q) | 9 (2.1) | 545 (7.5) | 19 (2.7) | 542 (5.0) | 50 (3.3) | 546 (3.5) | 22 (2.4) | 542 (4.2) |
| Colombia | 13 (2.5) | 406 (15.9) | 18 (3.6) | 444 (7.9) | 45 (4.9) | 419 (6.3) | 24 (4.8) | 420 (13.7) |
| Cyprus | 23 (4.7) | 494 (5.2) | 67 (4.9) | 497 (4.3) | 4 (1.8) | 499 (29.5) | 7 (2.0) | 475 (10.6) |
| Czech Republic | 39 (4.2) | 535 (4.6) | 17 (3.4) | 534 (3.4) | 30 (4.0) | 542 (4.5) | 14 (2.8) | 537 (4.2) |
| England | 31 (3.6) | 551 (6.5) | 52 (4.4) | 555 (5.5) | 10 (2.7) | 560 (7.5) | 6 (2.3) | 541 (10.7) |
| France | 46 (4.6) | 527 (3.5) | 9 (2.4) | 533 (9.0) | 38 (4.5) | 520 (4.8) | 7 (2.5) | 526 (9.3) |
| Germany | 10 (2.8) | 546 (7.5) | 19 (3.4) | 547 (3.7) | 27 (3.3) | 533 (4.2) | 44 (3.9) | 538 (3.0) |
| Greece | 13 (2.8) | 511 (13.5) | 26 (3.6) | 529 (6.7) | 38 (4.5) | 520 (4.4) | 23 (3.9) | 531 (7.1) |
| Hong Kong, SAR | 3 (1.5) | 533 (13.1) | 16 (3.0) | 527 (7.7) | 33 (4.1) | 524 (6.2) | 48 (4.1) | 532 (3.5) |
| Hungary | 4 (1.6) | 539 (6.5) | 4 (1.4) | 556 (14.7) | 48 (4.2) | 546 (4.0) | 45 (4.3) | 541 (3.7) |
| Iceland | 29 (0.3) | 514 (2.5) | 51 (0.4) | 509 (1.9) | 14 (0.3) | 519 (4.0) | 7 (0.2) | 506 (4.7) |
| Iran, Islamic Rep. of | 21 (3.6) | 413 (12.0) | 19 (3.7) | 421 (10.4) | 53 (4.2) | 413 (7.0) | 7 (2.2) | 404 (24.5) |
| Israel | 34 (4.1) | 473 (9.2) | 62 (4.0) | 527 (4.4) | 2 (1.3) | ~ ~ | 1 (1.0) | ~ ~ |
| Italy | 9 (2.2) | 537 (10.6) | 76 (3.2) | 541 (2.9) | 10 (2.0) | 542 (6.4) | 6 (2.0) | 538 (9.7) |
| Kuwait | 20 (4.3) | 383 (14.5) | 74 (4.8) | 405 (4.7) | 4 (1.3) | 382 (19.0) | 2 (1.8) | ~ ~ |
| Latvia | 16 (3.3) | 542 (6.8) | 26 (3.7) | 550 (5.5) | 32 (4.4) | 538 (4.7) | 26 (4.0) | 549 (5.2) |
| Lithuania | 12 (2.9) | 548 (7.3) | 23 (3.2) | 539 (5.4) | 48 (4.1) | 546 (3.9) | 17 (3.4) | 538 (8.0) |
| Macedonia, Rep. of | 34 (4.0) | 449 (10.5) | 35 (4.0) | 445 (8.6) | 25 (3.8) | 427 (12.9) | 6 (1.9) | 409 (18.4) |
| Moldova, Rep. of | 5 (1.8) | 484 (14.4) | 31 (4.3) | 491 (8.6) | 52 (4.4) | 495 (6.0) | 12 (3.4) | 476 (11.6) |
| Morocco | 2 (1.2) | ~ ~ | 4 (1.9) | 355 (19.7) | 46 (5.6) | 344 (12.3) | 47 (5.5) | 353 (15.7) |
| Netherlands | 33 (4.7) | 559 (4.3) | 45 (4.6) | 554 (3.9) | 17 (3.7) | 543 (6.7) | 4 (1.9) | 561 (6.8) |
| New Zealand | 49 (4.7) | 523 (5.3) | 46 (4.7) | 536 (6.5) | 3 (1.6) | 553 (4.2) | 2 (0.9) | ~ ~ |
| Norway | 73 (3.9) | 500 (3.5) | 23 (4.1) | 496 (6.7) | 3 (1.8) | 495 (14.8) | 1 (0.9) | ~ ~ |
| Romania | 40 (4.7) | 522 (8.8) | 22 (3.6) | 522 (7.7) | 32 (4.1) | 494 (6.7) | 7 (1.8) | 509 (25.1) |
| Russian Federation | 11 (2.4) | 544 (11.9) | 21 (2.6) | 525 (8.4) | 46 (3.2) | 531 (6.5) | 22 (2.9) | 517 (6.1) |
| Scotland | 4 (2.1) | 524 (16.5) | 20 (4.0) | 526 (10.2) | 34 (5.2) | 535 (6.6) | 41 (5.4) | 523 (5.2) |
| Singapore | 4 (1.4) | 478 (19.4) | 36 (3.7) | 514 (9.4) | 41 (4.0) | 544 (7.6) | 19 (3.2) | 529 (13.1) |
| Slovak Republic | 38 (4.1) | 509 (4.1) | 20 (3.5) | 521 (7.9) | 22 (3.4) | 519 (5.2) | 20 (3.3) | 529 (7.5) |
| Slovenia | 15 (2.5) | 503 (4.5) | 42 (3.5) | 501 (3.9) | 33 (3.0) | 500 (3.8) | 10 (2.7) | 506 (4.9) |
| Sweden | 58 (4.2) | 560 (2.9) | 35 (3.8) | 562 (4.1) | 4 (2.0) | 557 (4.6) | 3 (1.9) | 578 (6.1) |
| Turkey | 1 (0.9) | ~ ~ | 5 (1.5) | 474 (15.2) | 40 (4.6) | 445 (5.1) | 54 (4.4) | 450 (5.3) |
| United States | 40 (4.7) | 542 (4.9) | 28 (4.0) | 543 (7.3) | 24 (4.3) | 550 (7.9) | 7 (2.1) | 537 (10.1) |
| International Avg. | 23 (0.6) | 505 (2.2) | 31 (0.6) | 503 (1.4) | 29 (0.6) | 500 (2.6) | 18 (0.5) | 498 (2.8) |

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

Background data provided by schools.

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

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

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

Exhibit 7.7: Teachers Meet to Plan Reading Curriculum or Teaching Approaches

ISC
4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Reported Meeting to Plan Reading Curriculum or Teaching Approaches | | | | | | | |
|-----------------------|--|---------------------|-----------------------------------|---------------------|----------------------|---------------------|---------------------|---------------------|
| | At Least Once a Week | | Once a Month or Every Other Month | | Once or Twice a Year | | Never | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 28 (4.3) | 392 (13.3) | 37 (5.1) | 437 (8.8) | 23 (4.5) | 433 (12.5) | 12 (2.4) | 397 (13.7) |
| Belize | 28 (3.8) | 335 (8.8) | 24 (3.3) | 295 (12.5) | 24 (3.7) | 325 (11.1) | 24 (4.2) | 336 (17.1) |
| Bulgaria | 63 (3.6) | 548 (5.2) | 19 (3.1) | 550 (7.4) | 16 (2.6) | 562 (8.1) | 3 (1.3) | 540 (20.3) |
| Canada (O,Q) | 18 (2.6) | 549 (5.1) | 35 (3.1) | 546 (3.8) | 31 (3.2) | 545 (4.7) | 15 (2.5) | 537 (4.5) |
| Colombia | 18 (3.1) | 418 (12.6) | 40 (4.6) | 421 (7.7) | 22 (4.0) | 424 (8.0) | 20 (4.2) | 427 (15.3) |
| Cyprus | 39 (4.5) | 491 (4.3) | 21 (3.8) | 502 (5.8) | 25 (4.4) | 497 (6.9) | 15 (3.4) | 485 (6.1) |
| Czech Republic | 49 (4.4) | 537 (3.1) | 36 (4.6) | 535 (4.7) | 11 (2.7) | 539 (7.0) | 4 (1.6) | 536 (18.3) |
| England | 26 (3.6) | 536 (7.0) | 32 (4.2) | 564 (6.6) | 33 (4.2) | 563 (6.2) | 9 (2.3) | 540 (8.3) |
| France | 12 (2.1) | 529 (7.3) | 33 (3.9) | 520 (5.2) | 33 (4.1) | 530 (4.3) | 22 (3.9) | 524 (5.6) |
| Germany | 26 (3.1) | 538 (3.4) | 32 (3.3) | 542 (3.4) | 31 (3.3) | 543 (3.1) | 11 (2.2) | 528 (6.7) |
| Greece | 25 (3.4) | 539 (6.5) | 41 (4.6) | 518 (6.9) | 18 (3.0) | 523 (6.7) | 16 (3.3) | 527 (6.4) |
| Hong Kong, SAR | 15 (3.4) | 513 (9.0) | 40 (4.3) | 531 (5.5) | 35 (4.6) | 532 (5.1) | 10 (2.3) | 532 (5.9) |
| Hungary | 51 (4.2) | 539 (3.5) | 29 (4.1) | 552 (4.6) | 17 (3.3) | 542 (6.8) | 2 (1.3) | ~ ~ |
| Iceland | 21 (0.3) | 512 (2.3) | 28 (0.3) | 512 (1.9) | 40 (0.3) | 515 (2.1) | 11 (0.2) | 515 (4.5) |
| Iran, Islamic Rep. of | 18 (2.8) | 421 (9.5) | 61 (3.6) | 415 (5.8) | 12 (2.1) | 402 (12.9) | 8 (2.3) | 413 (20.5) |
| Israel | 53 (4.1) | 513 (5.8) | 29 (3.6) | 483 (8.6) | 15 (3.2) | 543 (10.4) | 3 (1.5) | 477 (37.8) |
| Italy | 46 (3.5) | 535 (4.0) | 32 (3.6) | 548 (3.8) | 10 (2.1) | 543 (7.5) | 12 (2.7) | 543 (7.0) |
| Kuwait | 64 (3.3) | 403 (5.9) | 19 (2.8) | 393 (6.9) | 8 (2.1) | 408 (18.1) | 9 (2.1) | 385 (12.6) |
| Latvia | 20 (3.4) | 548 (6.6) | 50 (4.4) | 542 (3.6) | 29 (3.9) | 548 (4.7) | 1 (0.9) | ~ ~ |
| Lithuania | 29 (4.0) | 539 (4.9) | 47 (4.4) | 547 (4.2) | 24 (3.5) | 540 (6.0) | 0 (0.0) | ~ ~ |
| Macedonia, Rep. of | 68 (4.2) | 442 (5.9) | 29 (4.0) | 441 (11.0) | 2 (0.9) | ~ ~ | 2 (1.1) | ~ ~ |
| Moldova, Rep. of | 55 (4.8) | 488 (6.2) | 35 (4.6) | 499 (7.1) | 9 (2.4) | 490 (9.3) | 0 (0.5) | ~ ~ |
| Morocco | 19 (3.8) | 339 (18.7) | 37 (4.6) | 337 (16.3) | 34 (5.0) | 362 (10.9) | 10 (3.1) | 313 (20.2) |
| Netherlands | 12 (2.9) | 550 (9.3) | 27 (4.2) | 546 (4.3) | 55 (4.5) | 559 (2.9) | 6 (2.1) | 547 (9.7) |
| New Zealand | 26 (3.7) | 516 (7.2) | 36 (4.3) | 530 (6.8) | 31 (3.6) | 540 (6.9) | 7 (2.4) | 515 (17.3) |
| Norway | 61 (4.1) | 501 (4.4) | 19 (3.9) | 495 (4.5) | 11 (2.5) | 496 (9.5) | 9 (2.9) | 497 (5.1) |
| Romania | 45 (4.3) | 507 (7.1) | 49 (4.3) | 519 (7.2) | 6 (2.0) | 487 (17.8) | 0 (0.4) | ~ ~ |
| Russian Federation | 25 (3.1) | 525 (9.0) | 59 (4.1) | 531 (3.7) | 15 (3.3) | 520 (8.9) | 0 (0.0) | ~ ~ |
| Scotland | 7 (2.5) | 529 (15.5) | 30 (4.2) | 532 (8.8) | 44 (5.1) | 527 (5.2) | 18 (3.8) | 523 (8.1) |
| Singapore | 14 (2.7) | 512 (14.0) | 38 (3.7) | 517 (7.2) | 37 (3.7) | 546 (7.7) | 11 (2.5) | 525 (18.1) |
| Slovak Republic | 45 (4.2) | 518 (3.7) | 42 (4.2) | 520 (5.7) | 11 (2.7) | 515 (8.0) | 3 (1.3) | 492 (20.5) |
| Slovenia | 48 (4.5) | 500 (2.7) | 26 (3.9) | 497 (4.9) | 18 (3.3) | 511 (4.6) | 8 (2.4) | 505 (5.6) |
| Sweden | 28 (2.8) | 556 (4.5) | 21 (2.7) | 562 (3.8) | 37 (3.2) | 563 (3.2) | 14 (1.9) | 568 (4.2) |
| Turkey | 37 (3.9) | 456 (6.9) | 40 (4.2) | 448 (6.4) | 18 (2.8) | 443 (9.2) | 4 (1.8) | 431 (8.6) |
| United States | 35 (4.7) | 539 (7.3) | 35 (4.6) | 541 (7.1) | 26 (3.4) | 554 (6.4) | 4 (1.6) | 512 (20.9) |
| International Avg. | 34 (0.6) | 498 (1.4) | 35 (0.7) | 499 (1.2) | 23 (0.6) | 505 (2.1) | 9 (0.4) | 488 (3.4) |

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

Background data provided by teachers.

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

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

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

Exhibit 7.8: Teachers' Recent Participation in Workshops or Seminars**ISC** 4th Grade
PIRLS 2001

| Countries | Percentage of Students Whose Teachers Participated in Workshops or Seminars During the Past Two Years | | | | | | | | | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | More than 35 Hours | | 16-35 Hours | | 6-15 Hours | | Less than 6 Hours | | No Time | |
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 28 (4.5) | 408 (14.0) | 21 (4.0) | 417 (8.6) | 22 (3.9) | 423 (8.7) | 23 (4.1) | 425 (17.4) | 7 (2.4) | 434 (15.1) |
| Belize | 15 (4.1) | 338 (18.0) | 8 (2.9) | 315 (16.2) | 29 (5.7) | 308 (9.4) | 20 (4.4) | 336 (16.8) | 28 (5.7) | 328 (14.8) |
| Bulgaria | 6 (1.9) | 574 (15.2) | 8 (2.3) | 550 (17.0) | 16 (2.8) | 554 (8.1) | 20 (3.5) | 559 (8.0) | 50 (4.2) | 543 (6.3) |
| Canada (O,Q) | 8 (1.9) | 538 (10.5) | 11 (1.6) | 554 (6.3) | 24 (2.8) | 543 (4.7) | 34 (3.2) | 540 (3.5) | 23 (2.8) | 551 (4.2) |
| Colombia | 17 (3.5) | 415 (10.9) | 19 (3.5) | 432 (9.1) | 28 (4.1) | 426 (8.1) | 6 (2.0) | 410 (15.3) | 30 (4.9) | 419 (11.1) |
| Cyprus | 1 (0.9) | ~ ~ | 8 (2.6) | 493 (5.7) | 23 (3.9) | 495 (5.8) | 37 (5.4) | 502 (5.3) | 30 (5.4) | 485 (5.0) |
| Czech Republic | 6 (2.3) | 531 (10.2) | 8 (2.3) | 532 (5.3) | 23 (3.5) | 540 (4.9) | 28 (3.3) | 540 (4.1) | 35 (3.1) | 535 (4.8) |
| England | 8 (2.8) | 577 (8.5) | 17 (3.3) | 534 (11.8) | 29 (4.7) | 557 (6.8) | 36 (4.8) | 554 (5.5) | 11 (2.8) | 562 (9.7) |
| France | 4 (1.4) | 512 (11.2) | 4 (1.5) | 527 (17.0) | 7 (1.8) | 522 (5.5) | 22 (3.2) | 523 (4.7) | 64 (3.5) | 527 (3.1) |
| Germany | 1 (0.7) | ~ ~ | 5 (1.2) | 537 (7.7) | 22 (2.1) | 538 (3.6) | 31 (2.4) | 543 (2.7) | 41 (3.3) | 536 (3.3) |
| Greece | 8 (2.2) | 520 (16.1) | 15 (3.7) | 537 (10.4) | 24 (4.7) | 517 (9.4) | 20 (3.5) | 516 (7.0) | 33 (3.9) | 533 (5.1) |
| Hong Kong, SAR | 11 (2.8) | 537 (10.7) | 14 (3.5) | 524 (9.5) | 17 (3.4) | 518 (6.5) | 36 (4.6) | 529 (5.5) | 22 (3.7) | 533 (6.2) |
| Hungary | 18 (3.0) | 553 (5.8) | 11 (2.6) | 531 (4.9) | 21 (2.9) | 548 (5.3) | 19 (2.9) | 546 (4.2) | 31 (3.9) | 541 (5.1) |
| Iceland | 11 (0.2) | 511 (3.3) | 12 (0.3) | 513 (3.9) | 22 (0.3) | 513 (2.9) | 18 (0.3) | 515 (2.9) | 36 (0.4) | 513 (2.1) |
| Iran, Islamic Rep. of | 18 (3.1) | 405 (9.0) | 12 (2.0) | 428 (10.6) | 6 (1.6) | 446 (11.3) | 6 (1.7) | 424 (20.8) | 58 (3.8) | 408 (6.4) |
| Israel | 46 (4.1) | 511 (6.4) | 9 (2.5) | 533 (11.5) | 20 (3.9) | 497 (12.8) | 13 (3.1) | 495 (17.8) | 12 (2.3) | 499 (12.9) |
| Italy | 17 (2.6) | 536 (5.9) | 21 (3.1) | 548 (5.1) | 21 (3.2) | 544 (5.4) | 9 (2.3) | 525 (10.8) | 32 (3.9) | 541 (4.8) |
| Kuwait | 7 (1.4) | 391 (16.2) | 9 (2.0) | 411 (15.3) | 18 (2.8) | 403 (7.6) | 16 (2.9) | 407 (13.7) | 50 (3.4) | 395 (6.4) |
| Latvia | 29 (3.6) | 555 (4.2) | 17 (3.3) | 549 (6.7) | 33 (4.2) | 543 (4.1) | 14 (3.2) | 529 (6.0) | 7 (2.2) | 536 (11.6) |
| Lithuania | 9 (2.4) | 542 (7.8) | 15 (2.9) | 535 (7.1) | 35 (4.0) | 539 (4.8) | 26 (3.5) | 552 (5.6) | 15 (3.3) | 547 (6.6) |
| Macedonia, Rep. of | 14 (3.1) | 456 (11.6) | 4 (1.9) | 448 (20.1) | 30 (4.2) | 445 (10.2) | 21 (3.8) | 441 (13.5) | 31 (4.3) | 436 (11.8) |
| Moldova, Rep. of | 11 (2.8) | 491 (11.6) | 13 (3.0) | 503 (11.5) | 29 (3.9) | 494 (7.8) | 39 (4.2) | 488 (7.7) | 8 (2.4) | 483 (16.0) |
| Morocco | 5 (2.2) | 346 (32.6) | 11 (3.0) | 341 (12.5) | 23 (4.3) | 347 (16.7) | 27 (4.7) | 328 (19.8) | 35 (4.8) | 356 (14.0) |
| Netherlands | 9 (2.7) | 549 (8.9) | 4 (1.9) | 557 (19.6) | 24 (4.0) | 549 (4.9) | 36 (4.4) | 554 (3.5) | 27 (3.9) | 560 (4.8) |
| New Zealand | 11 (2.6) | 531 (11.0) | 14 (3.0) | 531 (10.8) | 35 (4.3) | 523 (8.9) | 28 (4.0) | 530 (6.3) | 12 (2.8) | 537 (13.7) |
| Norway | 7 (1.8) | 480 (13.1) | 8 (2.7) | 516 (12.4) | 18 (3.1) | 495 (5.9) | 24 (3.8) | 498 (5.2) | 44 (4.6) | 502 (4.2) |
| Romania | 21 (3.9) | 510 (11.6) | 18 (2.5) | 534 (11.8) | 24 (3.6) | 521 (10.0) | 11 (2.7) | 511 (10.7) | 25 (3.4) | 491 (10.8) |
| Russian Federation | 18 (3.3) | 542 (7.2) | 22 (3.0) | 536 (7.1) | 32 (3.6) | 521 (8.3) | 16 (2.7) | 531 (8.7) | 11 (2.6) | 506 (10.4) |
| Scotland | 5 (2.1) | 511 (21.0) | 4 (2.0) | 509 (27.0) | 25 (5.0) | 508 (6.7) | 30 (4.9) | 540 (5.8) | 35 (4.8) | 537 (6.1) |
| Singapore | 22 (3.4) | 510 (12.8) | 12 (2.7) | 532 (16.8) | 19 (2.9) | 547 (13.8) | 31 (3.4) | 542 (7.2) | 16 (2.7) | 500 (8.4) |
| Slovak Republic | 5 (1.8) | 513 (10.8) | 7 (2.1) | 505 (10.5) | 22 (3.4) | 525 (6.2) | 43 (4.3) | 521 (3.8) | 23 (3.4) | 510 (6.2) |
| Slovenia | 12 (2.9) | 500 (6.2) | 25 (3.4) | 505 (4.6) | 34 (4.2) | 503 (3.3) | 13 (2.3) | 492 (6.7) | 15 (3.1) | 502 (7.2) |
| Sweden | 11 (2.5) | 554 (6.1) | 7 (1.6) | 557 (8.7) | 20 (2.6) | 562 (4.8) | 26 (3.1) | 568 (3.8) | 36 (3.2) | 560 (3.0) |
| Turkey | 12 (2.6) | 435 (11.5) | 16 (3.8) | 446 (7.8) | 20 (3.4) | 445 (6.4) | 13 (2.9) | 472 (10.9) | 39 (4.0) | 450 (7.7) |
| United States | 15 (2.9) | 541 (9.3) | 25 (3.7) | 525 (7.2) | 31 (4.4) | 553 (5.4) | 23 (4.2) | 550 (6.6) | 6 (2.3) | 531 (15.3) |
| International Avg. | 13 (0.5) | 498 (2.1) | 12 (0.5) | 501 (2.0) | 24 (0.6) | 500 (1.3) | 23 (0.6) | 501 (1.7) | 28 (0.6) | 498 (1.5) |

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

Background data provided by teachers.

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

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

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

What Is the Level of Home-School Involvement?

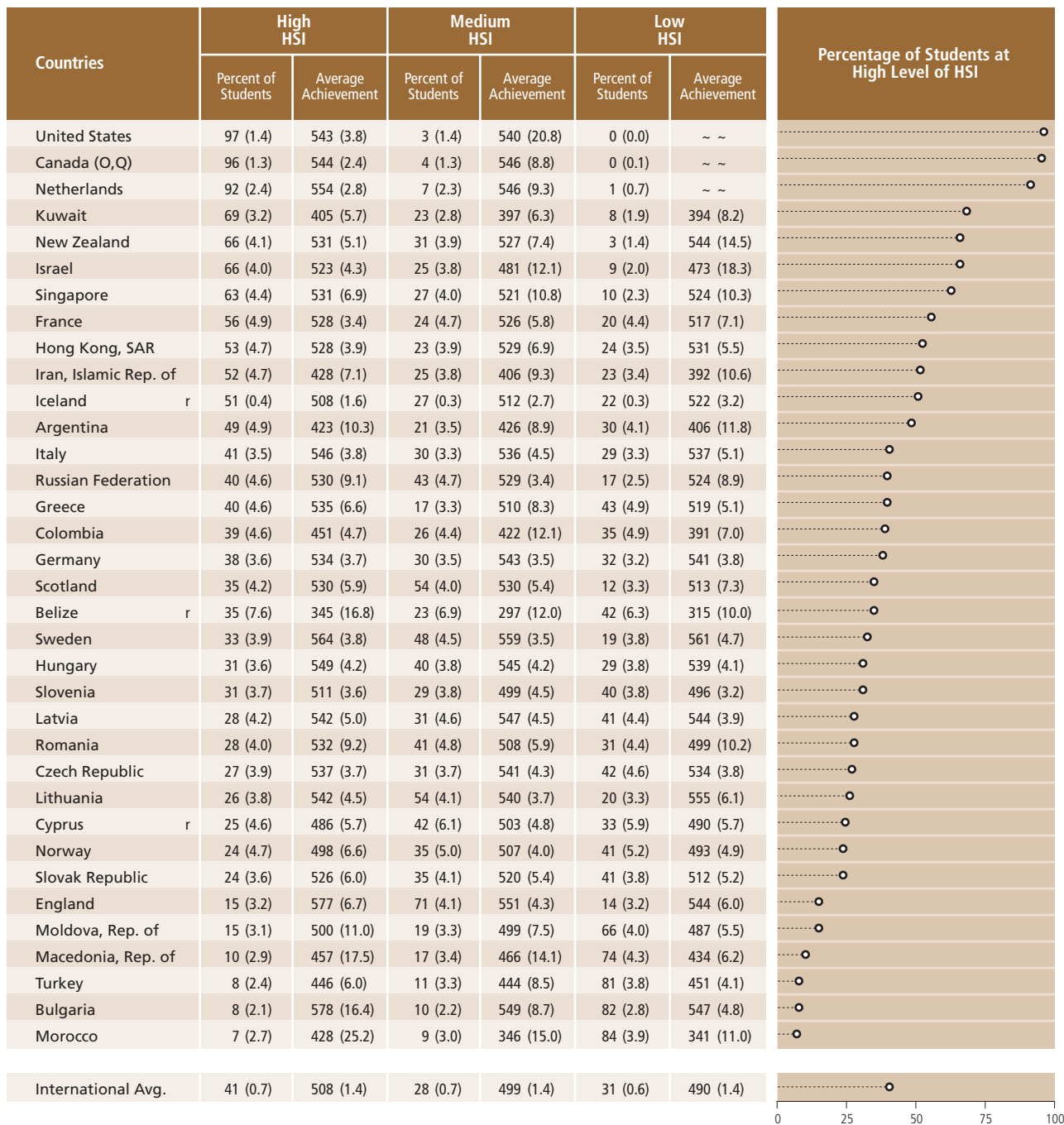
Parental involvement provides a means for monitoring academic progress and reinforcing behaviors believed to contribute to students' academic success. There are several ways in which schools keep parents apprised of their child's progress in school. Schools may send information about the school home to the parents, parents may participate in school-related events, or teachers may send home examples of classroom work.

To measure the extent to which communication was emphasized between schools and parents in each of the participating countries, PIRLS created an Index of Home-School Involvement. As described in Exhibit 7.9, the index was based on schools' average response to six questions about the opportunities for parental involvement provided by the school and about parental attendance at school-sponsored meetings or other events. Students were placed in the high category if schools held teacher-parent conferences and other events at school to which parents were invited, and more than half attended, four or more times a year; schools sent home letters, calendars and newsletters with information about the school 7 or more times a year; and they sent written reports, or report cards, of children's performance four or more times a year. The low level indicates that schools never held teacher-parent conferences, or if conferences were held less than one quarter of the parents attended; schools sent home letters, calendars or newsletters about the school no more than 3 times a year; and they sent home written reports of children's performance once a year, if ever. The medium level indicates all other combinations of parental involvement opportunities and participation.

On average, internationally, 41 percent of students were in the high category, 28 were in the medium, and 31 in the low category. At least half the students in the United States, Canada (O,Q), The Netherlands, Kuwait, New Zealand, Israel, Singapore, France, Hong Kong, Iran, and Iceland were in schools at the high level. Only in Morocco, Bulgaria, Turkey, Macedonia, and Moldova were two-thirds or more of students in schools at the low level of home-school involvement.

Exhibits 7.10 through 7.12 present results of more informal home-school interaction. As shown in Exhibit 7.10, the teachers of 62 percent of students, internationally, on average, sent home examples of the students' classroom work in language arts at least monthly. Interestingly, in most English-speaking countries, for the majority of students, teachers sent home examples of classroom work only six times a year or less, with the exception of the United States, where the majority of students (65%) had teachers who sent examples home at least weekly. Exhibit 7.11 shows how often schools asked the parents to review their child's language progress by sending home examples of classroom work, sending home information about the child's performance in the language, and asking parents to monitor the completion of assignments. Internationally, on average, nearly half (48%) the students had parents who were asked to review their child's language progress. Parents' reports of how often they discussed classroom reading work with their child are presented in Exhibit 7.12. Three-quarters of students, internationally, on average, had parents who reported talking to their child at least once or twice a week about their reading work.

Exhibit 7.9: Index of Home-School Involvement (HSI)

ISC
4th Grade
PIRLS 2001

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

Index of Home-School Involvement (HSI)

Based on principals' responses to how often and what percentage of students' parents participate in the following provided by the school: teacher-parent conferences; letters, calendars, newsletters, etc., sent home to provide information about school; written reports (report cards) of child's performance sent home; and events at school to which parents are invited. High level indicates that 4 or more times a year schools hold teacher-parent conferences and events at school attended by more than half of the parents; send home letters, calendars, newsletters, etc., with information about the

school 7 or more times a year; and send written reports (report cards) of child's performance 4 or more times a year. Low level indicates schools never hold teacher-parent conferences, or if they do, only 0-25% of parents attend; schools never hold events, or do so only yearly, attended by 0-25% of parents; send home letters, calendars, newsletters, etc., no more than 3 times a year; and send home written reports of children's performance never or only once a year. Medium level indicates all other combinations.

() 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 7.10: Teachers Send Home Examples of Students' Classroom Work in Language**ISC** 4th Grade
PIRLS 2001

| Countries | Weekly | | Monthly | | 6 Times a Year or Less | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|------------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 32 (4.4) | 425 (8.4) | 31 (5.0) | 406 (14.9) | 37 (4.6) | 425 (9.4) |
| Belize | 30 (4.3) | 342 (11.3) | 38 (5.0) | 321 (10.3) | 32 (5.4) | 311 (11.4) |
| Bulgaria | 55 (4.3) | 552 (6.5) | 38 (4.3) | 553 (5.7) | 8 (2.0) | 527 (14.5) |
| Canada (O,Q) | 24 (2.9) | 549 (3.8) | 44 (3.6) | 546 (3.1) | 33 (3.3) | 540 (4.8) |
| Colombia | 35 (5.0) | 420 (9.0) | 35 (4.8) | 427 (6.8) | 30 (4.6) | 426 (9.5) |
| Cyprus | 50 (5.1) | 496 (4.5) | 39 (4.6) | 494 (4.9) | 11 (2.8) | 486 (6.9) |
| Czech Republic | 55 (4.5) | 540 (3.4) | 29 (3.9) | 535 (4.1) | 17 (3.2) | 529 (6.9) |
| England | 7 (2.7) | 583 (9.9) | 6 (2.3) | 546 (13.3) | 86 (3.5) | 552 (3.6) |
| France | 30 (4.3) | 530 (4.5) | 41 (4.3) | 525 (3.8) | 29 (3.7) | 519 (5.2) |
| Germany | 12 (2.1) | 535 (3.8) | 34 (3.2) | 540 (3.4) | 53 (3.2) | 539 (3.2) |
| Greece | 56 (4.7) | 521 (4.6) | 29 (4.0) | 533 (8.3) | 16 (2.9) | 526 (9.6) |
| Hong Kong, SAR | 22 (3.8) | 532 (7.5) | 13 (3.1) | 535 (6.2) | 65 (4.7) | 526 (3.8) |
| Hungary | 14 (2.8) | 557 (9.2) | 59 (4.1) | 544 (3.5) | 28 (3.6) | 538 (4.7) |
| Iceland | 34 (0.4) | 517 (1.9) | 10 (0.2) | 506 (3.9) | 56 (0.4) | 512 (1.6) |
| Iran, Islamic Rep. of | 21 (3.0) | 421 (11.3) | 47 (4.1) | 414 (5.9) | 32 (4.1) | 410 (8.5) |
| Israel | 14 (3.2) | 496 (15.1) | 36 (4.2) | 496 (7.2) | 50 (4.6) | 512 (7.3) |
| Italy | 59 (3.5) | 544 (3.5) | 24 (3.0) | 538 (4.2) | 16 (2.8) | 540 (7.3) |
| Kuwait | 29 (3.3) | 398 (8.7) | 56 (3.5) | 401 (5.0) | 15 (2.5) | 395 (12.2) |
| Latvia | 44 (3.9) | 548 (4.2) | 28 (3.8) | 544 (4.7) | 29 (3.8) | 539 (4.0) |
| Lithuania | 15 (3.1) | 547 (7.2) | 38 (4.4) | 540 (4.6) | 47 (4.5) | 545 (3.9) |
| Macedonia, Rep. of | 28 (3.7) | 455 (10.4) | 47 (4.7) | 443 (9.0) | 24 (3.9) | 432 (12.3) |
| Moldova, Rep. of | 34 (4.4) | 502 (7.1) | 38 (4.4) | 484 (7.1) | 28 (4.5) | 488 (9.2) |
| Morocco | 5 (2.1) | 341 (38.2) | 45 (4.8) | 340 (12.4) | 50 (5.2) | 349 (11.1) |
| Netherlands | 9 (2.4) | 549 (10.8) | 9 (2.6) | 543 (7.1) | 82 (3.3) | 555 (2.7) |
| New Zealand | 3 (1.5) | 586 (32.6) | 6 (2.4) | 514 (16.1) | 91 (2.8) | 528 (3.9) |
| Norway | 17 (3.4) | 497 (6.9) | 19 (3.3) | 508 (6.4) | 64 (4.4) | 496 (3.7) |
| Romania | 65 (3.9) | 519 (6.5) | 27 (3.7) | 505 (7.6) | 8 (2.5) | 483 (11.8) |
| Russian Federation | 82 (2.8) | 532 (4.0) | 11 (2.2) | 499 (15.1) | 8 (1.6) | 528 (9.4) |
| Scotland | 6 (2.6) | 540 (10.4) | 4 (2.0) | 528 (25.2) | 89 (3.3) | 527 (4.2) |
| Singapore | 27 (3.5) | 520 (10.0) | 41 (3.8) | 536 (8.2) | 32 (3.5) | 528 (9.8) |
| Slovak Republic | 38 (4.0) | 524 (5.1) | 31 (4.0) | 518 (4.3) | 30 (3.4) | 511 (5.1) |
| Slovenia | 49 (4.0) | 502 (2.7) | 38 (4.0) | 500 (3.6) | 13 (2.6) | 506 (7.3) |
| Sweden | 13 (2.6) | 561 (6.1) | 17 (2.4) | 568 (3.7) | 70 (2.9) | 560 (2.6) |
| Turkey | 11 (2.8) | 478 (14.9) | 55 (4.3) | 458 (4.7) | 34 (4.0) | 427 (5.8) |
| United States | 65 (4.9) | 545 (5.0) | 27 (4.9) | 546 (5.2) | 8 (1.9) | 501 (11.5) |
| International Avg. | 31 (0.6) | 506 (1.9) | 31 (0.6) | 498 (1.5) | 38 (0.6) | 495 (1.3) |

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

Background data provided by teachers.

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

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

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

Exhibit 7.11: Schools Ask Parents to Review Child's Language Progress***ISC** 4th Grade
PIRLS 2001

| Countries | | Often | | Sometimes | | Never or Almost Never | |
|-----------------------|---|---------------------|---------------------|---------------------|---------------------|-----------------------|---------------------|
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | s | 51 (1.8) | 434 (5.8) | 26 (1.2) | 423 (7.4) | 23 (1.4) | 425 (8.4) |
| Belize | s | 58 (2.1) | 332 (5.6) | 23 (1.7) | 317 (8.6) | 20 (1.3) | 341 (8.8) |
| Bulgaria | | 78 (1.2) | 555 (3.8) | 13 (0.8) | 545 (5.6) | 9 (0.8) | 552 (6.8) |
| Canada (O,Q) | r | 54 (1.2) | 550 (2.4) | 21 (0.7) | 550 (3.9) | 25 (1.1) | 549 (3.0) |
| Colombia | | 71 (1.3) | 421 (4.3) | 15 (0.9) | 424 (7.6) | 14 (0.9) | 446 (7.4) |
| Cyprus | s | 53 (1.7) | 492 (4.4) | 15 (0.8) | 488 (7.0) | 32 (1.4) | 495 (4.0) |
| Czech Republic | | 44 (1.6) | 537 (3.3) | 22 (1.2) | 541 (3.5) | 34 (1.5) | 544 (3.1) |
| England | s | 36 (1.3) | 572 (5.4) | 21 (1.2) | 575 (5.0) | 44 (1.5) | 569 (4.0) |
| France | | 44 (1.1) | 534 (3.2) | 19 (0.8) | 524 (4.9) | 37 (1.3) | 523 (2.9) |
| Germany | | 13 (0.7) | 509 (4.4) | 11 (0.6) | 534 (3.1) | 76 (1.0) | 550 (1.9) |
| Greece | | 33 (1.4) | 519 (3.9) | 17 (1.0) | 520 (5.4) | 50 (1.4) | 533 (4.5) |
| Hong Kong, SAR | | 62 (1.1) | 531 (3.0) | 15 (0.6) | 522 (4.2) | 23 (0.9) | 531 (3.7) |
| Hungary | | 69 (1.2) | 542 (2.3) | 16 (0.7) | 551 (3.6) | 15 (0.8) | 557 (3.6) |
| Iceland | r | 39 (0.9) | 519 (2.3) | 23 (0.7) | 514 (3.2) | 39 (0.9) | 516 (2.2) |
| Iran, Islamic Rep. of | | 53 (1.8) | 412 (4.3) | 19 (0.9) | 408 (5.9) | 28 (1.4) | 423 (6.9) |
| Israel | | x x | x x | x x | x x | x x | x x |
| Italy | | 49 (1.1) | 542 (2.8) | 16 (0.6) | 538 (4.3) | 35 (1.1) | 549 (2.8) |
| Kuwait | r | 33 (0.7) | 397 (4.9) | 17 (0.6) | 394 (5.8) | 50 (0.8) | 406 (4.9) |
| Latvia | | 50 (1.5) | 541 (2.9) | 22 (1.2) | 544 (3.5) | 29 (1.2) | 559 (3.5) |
| Lithuania | | 24 (1.1) | 520 (4.0) | 35 (1.0) | 541 (3.1) | 41 (1.4) | 561 (3.2) |
| Macedonia, Rep. of | r | 65 (1.0) | 447 (5.2) | 18 (0.8) | 439 (7.8) | 18 (0.8) | 469 (6.9) |
| Moldova, Rep. of | | 59 (1.8) | 492 (4.3) | 17 (1.0) | 486 (6.7) | 24 (1.5) | 497 (4.9) |
| Morocco | | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 24 (1.2) | 557 (4.0) | 19 (0.9) | 559 (3.5) | 56 (1.5) | 567 (2.5) |
| New Zealand | r | 42 (1.3) | 533 (5.1) | 23 (1.1) | 539 (4.7) | 34 (1.4) | 541 (4.6) |
| Norway | | 22 (1.1) | 497 (4.9) | 20 (0.9) | 505 (4.0) | 58 (1.6) | 504 (3.7) |
| Romania | | 60 (1.8) | 508 (6.3) | 15 (0.8) | 510 (5.3) | 26 (1.5) | 527 (4.8) |
| Russian Federation | | 64 (1.7) | 522 (5.0) | 13 (0.9) | 533 (5.4) | 23 (1.3) | 543 (4.8) |
| Scotland | s | 52 (1.7) | 539 (5.1) | 18 (1.1) | 543 (5.8) | 30 (1.7) | 547 (4.9) |
| Singapore | | 43 (0.8) | 526 (5.0) | 25 (0.5) | 523 (5.7) | 33 (0.8) | 542 (5.3) |
| Slovak Republic | | 49 (1.3) | 514 (3.1) | 23 (0.8) | 524 (4.8) | 27 (1.1) | 528 (3.6) |
| Slovenia | | 54 (1.4) | 499 (2.2) | 21 (0.9) | 497 (3.9) | 25 (1.1) | 518 (3.6) |
| Sweden | | 47 (1.2) | 561 (2.7) | 25 (0.7) | 565 (2.9) | 27 (0.9) | 567 (2.6) |
| Turkey | | 56 (1.7) | 460 (4.1) | 21 (1.1) | 439 (4.1) | 23 (1.4) | 439 (5.8) |
| United States | | -- | -- | -- | -- | -- | -- |
| International Avg. | | 48 (0.2) | 504 (0.7) | 20 (0.2) | 504 (0.9) | 32 (0.2) | 513 (0.8) |

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

*Based on parents' responses to how often their child's school has: asked to make sure child does his/her language assignments; given or sent home examples of child's classroom work in language; and given or sent home information about child's performance in language. Average is computed on a 3-point

scale: Never or almost never = 1, Sometimes = 2, and Often = 3. Often indicates an average of greater than 2.33 through 3. Sometimes indicates an average of 1.67 through 2.33. Never or almost never indicates an average of 1 to less than 1.67.

() 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 7.12: Parents Discuss Child's Classroom Reading Work with Him or Her**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 | s | 59 (1.5) | 426 (6.2) | 22 (1.0) | 428 (8.9) | 7 (0.8) | 437 (11.3) | 13 (0.9) | 440 (8.0) |
| Belize | s | 42 (1.6) | 344 (6.5) | 31 (1.2) | 332 (6.5) | 15 (1.0) | 308 (7.9) | 12 (1.2) | 305 (10.1) |
| Bulgaria | | 63 (1.5) | 557 (3.4) | 23 (0.8) | 555 (4.6) | 9 (0.8) | 551 (9.2) | 6 (0.9) | 505 (14.9) |
| Canada (O,Q) | r | 36 (0.8) | 546 (2.8) | 39 (0.9) | 550 (2.9) | 18 (0.7) | 555 (3.3) | 7 (0.4) | 557 (5.0) |
| Colombia | | 51 (1.6) | 421 (4.9) | 27 (1.3) | 426 (5.6) | 12 (0.9) | 436 (6.3) | 10 (0.7) | 434 (8.2) |
| Cyprus | s | 57 (1.4) | 487 (3.6) | 25 (1.0) | 501 (4.3) | 12 (0.8) | 495 (7.2) | 6 (0.6) | 505 (8.8) |
| Czech Republic | | 9 (0.7) | 523 (5.5) | 28 (1.2) | 535 (3.7) | 36 (1.1) | 543 (3.0) | 27 (1.1) | 549 (3.9) |
| England | s | 32 (1.4) | 562 (4.6) | 43 (1.5) | 573 (4.5) | 20 (1.2) | 580 (6.6) | 5 (0.7) | 585 (9.9) |
| France | | 36 (1.2) | 520 (2.7) | 39 (1.0) | 527 (3.3) | 17 (0.8) | 541 (3.9) | 8 (0.7) | 535 (5.7) |
| Germany | | 30 (0.8) | 536 (2.3) | 40 (0.8) | 547 (2.2) | 20 (0.6) | 550 (2.8) | 9 (0.5) | 538 (3.7) |
| Greece | | 79 (1.2) | 530 (3.7) | 15 (1.0) | 514 (6.5) | 4 (0.5) | 516 (7.8) | 2 (0.4) | ~ ~ |
| Hong Kong, SAR | | 22 (0.8) | 533 (3.3) | 33 (0.7) | 530 (3.4) | 26 (0.9) | 527 (3.6) | 18 (0.8) | 531 (4.0) |
| Hungary | | 41 (1.0) | 539 (2.7) | 39 (0.8) | 543 (2.7) | 16 (0.6) | 565 (3.8) | 4 (0.4) | 565 (9.7) |
| Iceland | r | 24 (0.9) | 504 (2.9) | 38 (0.9) | 515 (2.3) | 24 (0.7) | 525 (3.2) | 14 (0.7) | 531 (3.8) |
| Iran, Islamic Rep. of | | 49 (1.4) | 430 (4.4) | 25 (1.0) | 417 (4.8) | 13 (0.9) | 392 (7.2) | 12 (1.1) | 375 (6.8) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 65 (1.0) | 539 (2.5) | 24 (0.9) | 550 (3.5) | 6 (0.4) | 556 (5.9) | 5 (0.4) | 554 (6.8) |
| Kuwait | r | 67 (0.7) | 403 (4.7) | 21 (0.6) | 403 (5.9) | 8 (0.5) | 389 (6.9) | 4 (0.3) | 377 (10.8) |
| Latvia | | 40 (1.0) | 542 (3.2) | 37 (1.3) | 550 (2.7) | 15 (0.8) | 550 (4.1) | 9 (0.8) | 553 (6.3) |
| Lithuania | | 29 (1.1) | 531 (3.8) | 34 (1.0) | 541 (3.4) | 24 (0.9) | 555 (3.3) | 13 (0.7) | 557 (4.9) |
| Macedonia, Rep. of | r | 79 (1.3) | 453 (5.1) | 16 (0.8) | 444 (8.6) | 4 (0.5) | 425 (16.9) | 2 (0.7) | ~ ~ |
| Moldova, Rep. of | | 44 (1.3) | 498 (4.2) | 35 (1.0) | 496 (4.7) | 14 (0.8) | 484 (5.4) | 7 (0.5) | 466 (7.0) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 23 (0.9) | 555 (4.3) | 41 (1.1) | 560 (2.9) | 28 (1.0) | 572 (3.4) | 8 (0.7) | 575 (4.2) |
| New Zealand | r | 28 (1.2) | 524 (5.5) | 42 (1.2) | 542 (3.5) | 22 (1.1) | 548 (5.9) | 8 (0.7) | 536 (7.1) |
| Norway | | 23 (0.9) | 494 (4.6) | 42 (1.1) | 503 (3.3) | 25 (1.1) | 509 (4.1) | 9 (0.8) | 505 (7.3) |
| Romania | | 41 (1.4) | 517 (5.7) | 34 (1.1) | 513 (5.0) | 15 (0.9) | 518 (9.0) | 9 (1.2) | 488 (13.5) |
| Russian Federation | | 57 (1.3) | 525 (4.4) | 25 (0.8) | 534 (5.5) | 11 (0.7) | 532 (5.2) | 7 (0.6) | 529 (6.9) |
| Scotland | s | 44 (1.7) | 529 (5.3) | 41 (1.6) | 552 (4.1) | 12 (1.0) | 558 (8.3) | 3 (0.3) | 536 (13.5) |
| Singapore | | 29 (0.7) | 532 (5.3) | 33 (0.7) | 529 (5.2) | 22 (0.5) | 531 (5.6) | 16 (0.5) | 529 (6.3) |
| Slovak Republic | | 39 (1.1) | 509 (3.2) | 37 (0.8) | 525 (3.4) | 16 (0.7) | 531 (3.8) | 8 (0.5) | 530 (5.5) |
| Slovenia | | 47 (0.9) | 498 (2.5) | 36 (0.9) | 504 (2.7) | 14 (0.6) | 517 (3.6) | 3 (0.3) | 520 (7.9) |
| Sweden | | 23 (1.1) | 551 (3.3) | 40 (1.0) | 563 (2.6) | 29 (0.8) | 573 (2.5) | 8 (0.5) | 568 (4.0) |
| Turkey | | 52 (1.7) | 464 (4.0) | 27 (1.0) | 442 (4.5) | 12 (0.7) | 435 (6.0) | 9 (0.9) | 422 (7.9) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 43 (0.2) | 504 (0.7) | 32 (0.2) | 508 (0.8) | 16 (0.1) | 510 (1.1) | 9 (0.1) | 507 (1.5) |

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

Background data provided by parents.

() 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.

How Serious Is Absenteeism in Schools?

Principals' reports on the seriousness of absenteeism in their schools are detailed in Exhibit 7.13. Absenteeism did not appear to be prevalent among fourth graders. On average, internationally, almost four-fifths of students attended schools where absenteeism was reported to be either a minor problem or not a problem. In only Kuwait and Morocco were one-third or more of the students in schools reporting absenteeism as a serious problem.

What Are the Perceptions of School Climate?

The school environment establishes the climate for learning. To measure the extent to which schools offer a positive school climate, PIRLS created an Index of Principals' Perceptions of School Climate, shown in Exhibit 7.14. On a scale from very high to very low, the index was based on principals' characterizations of the following: teachers' job satisfaction, teachers' expectations for student achievement, parental support for student achievement, students' regard for school property, and students' desire to do well in school. Principals of students at the high category had an average response of "high" or "very high". Students' principals characterized school climate as "medium" at the medium level, and "low" or "very low" at the low level.

Internationally, on average, about one-third of the students (36%) were in the high category and the majority (62%) were in the medium category – only 2 percent internationally were at the low level. Students in schools that reported having a high level of principals' perceptions of school climate generally had higher average reading achievement than those in schools where the perception of school climate was less positive. In Iceland, Norway, Cyprus, New Zealand, Scotland, and the United States, more than 60 percent of students attended schools perceived by the principals to have high morale, high academic expectations, regard for school property, and a high level of parental support.

Exhibit 7.13: Seriousness of Absenteeism in Schools**ISC**
4th Grade
PIRLS 2001

| Countries | Not a Problem | | Minor Problem | | Moderate Problem | | Serious Problem | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 31 (4.5) | 442 (9.1) | 35 (4.5) | 423 (11.9) | 23 (4.1) | 398 (9.8) | 11 (2.9) | 372 (16.9) |
| Belize | 4 (1.3) | 311 (18.8) | 49 (7.8) | 337 (11.9) | 35 (7.0) | 318 (15.9) | 12 (3.6) | 309 (14.9) |
| Bulgaria | 21 (3.1) | 547 (8.7) | 35 (3.8) | 558 (5.7) | 32 (4.0) | 552 (5.8) | 12 (2.7) | 527 (18.0) |
| Canada (O,Q) | 45 (3.4) | 551 (2.9) | 46 (3.2) | 544 (2.9) | 8 (2.0) | 504 (5.6) | 1 (0.5) | ~ ~ |
| Colombia | 10 (2.5) | 459 (10.4) | 42 (5.0) | 430 (8.2) | 30 (4.9) | 427 (7.6) | 18 (3.0) | 382 (12.8) |
| Cyprus | 69 (4.7) | 496 (3.8) | 25 (4.9) | 483 (6.4) | 2 (0.9) | ~ ~ | 4 (2.1) | 521 (8.2) |
| Czech Republic | 29 (3.3) | 538 (4.6) | 62 (3.9) | 538 (3.0) | 8 (2.2) | 527 (5.8) | 0 (0.0) | ~ ~ |
| England | -- | -- | -- | -- | -- | -- | -- | -- |
| France | 50 (5.3) | 530 (4.0) | 40 (5.3) | 525 (4.6) | 10 (2.6) | 505 (5.8) | 1 (0.9) | ~ ~ |
| Germany | 45 (4.5) | 546 (3.3) | 45 (4.9) | 538 (2.9) | 9 (2.5) | 517 (6.9) | 1 (0.6) | ~ ~ |
| Greece | 48 (4.9) | 532 (5.5) | 43 (5.2) | 526 (7.0) | 2 (1.2) | ~ ~ | 6 (2.6) | 520 (12.0) |
| Hong Kong, SAR | 78 (4.1) | 530 (3.2) | 20 (4.0) | 526 (8.0) | 1 (1.0) | ~ ~ | 0 (0.0) | ~ ~ |
| Hungary | 15 (2.7) | 549 (5.6) | 77 (3.4) | 546 (2.8) | 7 (2.2) | 524 (12.3) | 1 (0.9) | ~ ~ |
| Iceland | 39 (0.4) | 516 (2.1) | 52 (0.4) | 509 (2.0) | 9 (0.3) | 511 (4.6) | 0 (0.0) | ~ ~ |
| Iran, Islamic Rep. of | 36 (3.9) | 433 (9.6) | 36 (4.2) | 408 (7.3) | 15 (3.8) | 394 (13.3) | 13 (3.3) | 400 (13.0) |
| Israel | 36 (4.1) | 510 (6.3) | 48 (4.6) | 516 (6.7) | 11 (2.6) | 494 (15.3) | 5 (1.4) | 444 (36.1) |
| Italy | 42 (3.6) | 546 (3.4) | 32 (3.7) | 540 (4.7) | 14 (2.9) | 530 (6.2) | 12 (2.2) | 537 (8.2) |
| Kuwait | 6 (1.7) | 394 (5.1) | 30 (4.3) | 398 (7.2) | 22 (3.5) | 409 (5.6) | 42 (4.7) | 398 (9.4) |
| Latvia | 19 (3.4) | 545 (6.0) | 64 (3.9) | 545 (3.1) | 15 (3.5) | 541 (7.8) | 2 (1.3) | ~ ~ |
| Lithuania | 23 (3.5) | 543 (6.9) | 47 (4.1) | 547 (3.5) | 22 (3.7) | 539 (5.0) | 7 (2.3) | 538 (11.0) |
| Macedonia, Rep. of | 12 (2.8) | 421 (11.8) | 59 (4.0) | 451 (6.3) | 22 (3.8) | 448 (14.2) | 7 (2.2) | 361 (15.1) |
| Moldova, Rep. of | 10 (2.7) | 512 (12.2) | 39 (4.3) | 493 (7.3) | 43 (4.4) | 486 (6.8) | 8 (2.8) | 498 (14.1) |
| Morocco | 17 (2.9) | 334 (13.4) | 20 (3.6) | 335 (18.7) | 26 (4.7) | 359 (27.9) | 38 (4.7) | 354 (15.3) |
| Netherlands | 67 (4.6) | 556 (2.6) | 29 (4.2) | 548 (6.2) | 4 (1.8) | 552 (12.5) | 0 (0.0) | ~ ~ |
| New Zealand | 40 (4.0) | 557 (5.7) | 51 (4.2) | 518 (5.3) | 8 (2.1) | 477 (8.5) | 1 (0.9) | ~ ~ |
| Norway | 63 (4.9) | 505 (3.4) | 33 (4.8) | 488 (4.9) | 3 (1.7) | 504 (19.8) | 0 (0.0) | ~ ~ |
| Romania | 31 (3.9) | 520 (8.1) | 41 (4.7) | 515 (8.8) | 23 (3.7) | 504 (7.6) | 5 (1.8) | 478 (22.4) |
| Russian Federation | 41 (3.8) | 539 (4.5) | 56 (3.8) | 522 (6.9) | 2 (0.9) | ~ ~ | 1 (0.6) | ~ ~ |
| Scotland | 68 (4.7) | 539 (4.3) | 26 (5.0) | 507 (6.9) | 6 (2.6) | 488 (7.9) | 0 (0.0) | ~ ~ |
| Singapore | 55 (3.7) | 538 (7.8) | 43 (3.9) | 517 (7.9) | 3 (1.3) | 495 (37.3) | 0 (0.0) | ~ ~ |
| Slovak Republic | 28 (3.4) | 528 (4.7) | 43 (4.0) | 519 (4.1) | 22 (3.3) | 512 (6.4) | 8 (2.2) | 494 (18.9) |
| Slovenia | 19 (3.6) | 499 (5.4) | 76 (3.9) | 502 (2.3) | 4 (1.7) | 496 (11.3) | 0 (0.0) | ~ ~ |
| Sweden | 61 (4.6) | 563 (2.8) | 30 (4.5) | 560 (4.2) | 7 (2.2) | 550 (10.2) | 1 (1.0) | ~ ~ |
| Turkey | 20 (3.1) | 482 (9.2) | 38 (4.1) | 454 (4.9) | 23 (3.6) | 429 (9.3) | 19 (3.2) | 430 (6.0) |
| United States | 25 (3.3) | 567 (5.7) | 60 (4.7) | 546 (5.0) | 14 (3.0) | 500 (7.5) | 1 (0.7) | ~ ~ |
| International Avg. | 35 (0.6) | 505 (1.3) | 43 (0.8) | 497 (1.2) | 14 (0.5) | 483 (3.2) | 7 (0.4) | 445 (3.4) |

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

Background data provided by schools.

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

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

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

Exhibit 7.14: Index of Principals' Perceptions of School Climate (PPSC)ISC
4th Grade
PIRLS 2001

| Countries | High PPSC | | Medium PPSC | | Low PPSC | | Percentage of Students at High Level of PPSC |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Iceland | 77 (0.3) | 514 (1.4) | 23 (0.3) | 504 (2.7) | 0 (0.0) | ~ ~ | |
| Norway | 72 (3.6) | 505 (3.4) | 28 (3.6) | 486 (4.5) | 0 (0.0) | ~ ~ | |
| Cyprus | 66 (4.0) | 499 (3.7) | 34 (4.0) | 487 (6.7) | 0 (0.0) | ~ ~ | |
| New Zealand | 63 (4.1) | 541 (5.3) | 36 (4.0) | 511 (6.1) | 0 (0.0) | ~ ~ | |
| Scotland | 63 (4.8) | 537 (5.0) | 37 (4.8) | 509 (5.4) | 0 (0.0) | ~ ~ | |
| United States | 62 (4.9) | 557 (4.4) | 37 (4.9) | 523 (5.9) | 1 (0.7) | ~ ~ | |
| Singapore | 59 (3.8) | 536 (7.3) | 41 (3.8) | 517 (7.8) | 0 (0.0) | ~ ~ | |
| Greece | 57 (4.8) | 535 (4.3) | 42 (4.8) | 509 (4.5) | 1 (0.7) | ~ ~ | |
| Canada (O,Q) | 57 (3.7) | 552 (3.1) | 42 (3.6) | 534 (2.8) | 1 (0.5) | ~ ~ | |
| Sweden | 56 (5.2) | 566 (3.1) | 44 (5.2) | 554 (3.5) | 0 (0.0) | ~ ~ | |
| Argentina | 51 (4.9) | 439 (9.5) | 49 (4.9) | 396 (7.4) | 0 (0.0) | ~ ~ | |
| Hong Kong, SAR | 47 (4.6) | 532 (3.5) | 53 (4.6) | 526 (4.8) | 0 (0.0) | ~ ~ | |
| Iran, Islamic Rep. of | 45 (4.6) | 433 (7.6) | 52 (4.8) | 399 (4.4) | 3 (1.4) | 370 (15.5) | |
| France | 41 (4.8) | 536 (4.1) | 58 (4.9) | 519 (3.5) | 1 (1.2) | ~ ~ | |
| Romania | 33 (4.3) | 533 (7.3) | 67 (4.3) | 502 (5.9) | 0 (0.0) | ~ ~ | |
| Kuwait | 33 (4.3) | 405 (7.8) | 63 (4.8) | 404 (4.9) | 4 (2.3) | 305 (4.4) | |
| Macedonia, Rep. of | 27 (3.7) | 462 (10.9) | 71 (3.8) | 433 (6.0) | 1 (0.9) | ~ ~ | |
| Colombia | 27 (4.5) | 437 (9.0) | 69 (4.8) | 420 (6.0) | 4 (1.9) | 362 (34.2) | |
| Moldova, Rep. of | 27 (3.5) | 505 (7.1) | 73 (3.5) | 486 (5.2) | 0 (0.0) | ~ ~ | |
| Slovenia | 24 (3.7) | 506 (3.9) | 76 (3.7) | 500 (2.6) | 0 (0.0) | ~ ~ | |
| Germany | 24 (3.8) | 555 (4.4) | 76 (3.8) | 534 (2.0) | 0 (0.0) | ~ ~ | |
| Netherlands | 21 (4.3) | 566 (4.3) | 79 (4.3) | 550 (3.1) | 0 (0.0) | ~ ~ | |
| Belize | 21 (6.1) | 347 (24.9) | 74 (6.5) | 320 (8.6) | 5 (2.5) | 325 (18.1) | |
| Russian Federation | 20 (2.9) | 539 (9.0) | 80 (2.9) | 525 (4.6) | 0 (0.0) | ~ ~ | |
| Italy | 19 (2.7) | 544 (6.1) | 80 (2.8) | 540 (2.8) | 1 (0.0) | ~ ~ | |
| Hungary | 19 (3.3) | 560 (4.9) | 80 (3.3) | 542 (2.7) | 1 (0.6) | ~ ~ | |
| Turkey | 18 (3.0) | 477 (8.0) | 68 (3.5) | 447 (4.4) | 13 (2.9) | 425 (7.3) | |
| Bulgaria | 15 (2.9) | 580 (7.7) | 73 (3.6) | 551 (4.7) | 12 (2.7) | 505 (18.2) | |
| Morocco | 13 (2.3) | 382 (22.7) | 78 (3.8) | 346 (12.6) | 9 (3.0) | 329 (20.0) | |
| Lithuania | 12 (2.9) | 553 (10.2) | 88 (2.9) | 542 (2.5) | 0 (0.0) | ~ ~ | |
| Slovak Republic | 10 (2.7) | 528 (7.4) | 87 (3.0) | 518 (3.1) | 3 (1.3) | 484 (11.9) | |
| Latvia | 8 (2.2) | 569 (5.1) | 90 (2.4) | 542 (2.4) | 1 (0.9) | ~ ~ | |
| Czech Republic | 6 (2.4) | 536 (8.2) | 89 (3.0) | 538 (2.4) | 5 (1.7) | 532 (5.0) | |
| England | -- | -- | -- | -- | -- | -- | |
| Israel | -- | -- | -- | -- | -- | -- | |
| International Avg. | 36 (0.7) | 511 (1.5) | 62 (0.7) | 491 (0.9) | 2 (0.2) | ~ ~ | |

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

Index of Principal's Perceptions of School Climate

Based on principals' characterization in their school: teachers' job satisfaction; teachers' expectations for student achievement; parental support for student achievement; students' regard for school property; and students' desire to do well in school. Average is computed on a 5-point scale: Very high = 1,

High = 2, Medium = 3, Low = 4, and Very low = 5. High level indicates an average of 1 to less than 2.33. Medium level indicates an average of 2.33 through 3.67. Low level indicates an average of greater than 3.67 through 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.

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

How Safe Are Schools?

Safety is key for fostering a positive learning environment in schools. PIRLS asked both students and principals to characterize their perceptions of safety in their schools. Students' reports of feeling safe at school are presented in Exhibit 7.15. When asked how much they agreed with the statement "I feel safe when I'm in school", an average of 89 percent of students internationally agreed either a little or a lot. In Germany, Hong Kong, Iceland, Moldova, and The Netherlands, 15 percent or more of students disagreed or disagreed a lot with the statement.

Exhibit 7.16 presents results of students' affirmative responses to incidents of stealing, bullying, and hitting or hurting at school during the month prior to testing. On average, internationally, the same proportions of students reported incidents of stealing, bullying and hitting, with more students reporting something happening to someone in their class rather than to them as individuals. About 60 percent or more of students in Argentina, Belize, Israel, and New Zealand reported that incidents of stealing, bullying, and hitting or hurting had occurred against their classmates within the past month. The relatively high percentage of students reporting incidents in their classes seems to be in contradiction with students' overall feeling of safety. Students may have different interpretations of the types of behaviors that warranted a "yes" response. Furthermore, classroom teachers or school principals may have addressed events in the classroom in a manner that made the students feel safe.

PIRLS developed an Index of Principals' Perceptions of School Safety based on principals' responses to the severity of seven behavioral problems within school. These problems include classroom disturbances, cheating, profanity, vandalism, theft, intimidation or verbal abuse of other students, and physical conflict among students. Details of the index are shown in Exhibit 7.17. Students in the high category attended schools where principals rated all behaviors as not a problem. A low level indicates that all behaviors were reported to be serious problems, and the medium level indicates all other combinations of severity among the problems. Several countries had more than half the students at the high level. On average, internationally, only 6 percent

of students were in schools where principals' characterizations of school safety were at the low level. Morocco and Kuwait were the only countries with more than one-third of the students at the low level, where behavioral problems were perceived as being serious problems.

Exhibit 7.15: How Much Students Agree with Feeling Safe at School**ISC** 4th Grade
PIRLS 2001

| Countries | Agree a Lot | | Agree a Little | | Disagree a Little | | Disagree a Lot | |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | 73 (1.3) | 431 (5.1) | 21 (1.2) | 442 (8.4) | 2 (0.3) | ~ ~ | 3 (0.4) | 409 (14.1) |
| Belize | 68 (1.6) | 342 (4.9) | 19 (1.2) | 311 (8.6) | 5 (0.7) | 272 (10.5) | 7 (0.6) | 304 (9.5) |
| Bulgaria | 71 (1.5) | 549 (4.1) | 22 (1.1) | 570 (4.8) | 4 (0.4) | 548 (7.5) | 3 (0.4) | 535 (8.3) |
| Canada (O,Q) | 60 (0.9) | 545 (2.7) | 27 (0.7) | 551 (2.5) | 8 (0.5) | 545 (4.2) | 5 (0.5) | 513 (5.8) |
| Colombia | 91 (0.9) | 424 (4.5) | 7 (0.6) | 419 (6.7) | 2 (0.3) | ~ ~ | 1 (0.2) | ~ ~ |
| Cyprus | 66 (1.2) | 492 (3.2) | 23 (1.0) | 513 (5.5) | 6 (0.5) | 505 (6.1) | 5 (0.5) | 468 (9.3) |
| Czech Republic | 48 (1.8) | 526 (3.0) | 38 (1.4) | 554 (2.7) | 9 (0.6) | 545 (4.7) | 5 (0.4) | 509 (7.0) |
| England | -- | -- | -- | -- | -- | -- | -- | -- |
| France | 43 (1.0) | 516 (3.4) | 42 (0.9) | 537 (2.6) | 10 (0.6) | 532 (4.4) | 4 (0.5) | 510 (5.5) |
| Germany | 43 (1.0) | 537 (2.6) | 39 (0.7) | 549 (2.0) | 11 (0.5) | 544 (3.2) | 7 (0.5) | 516 (4.5) |
| Greece | 79 (1.0) | 523 (3.9) | 16 (0.9) | 535 (4.5) | 3 (0.4) | 532 (9.2) | 2 (0.4) | ~ ~ |
| Hong Kong, SAR | 56 (1.2) | 529 (3.2) | 29 (0.8) | 532 (3.4) | 9 (0.5) | 531 (4.5) | 6 (0.5) | 508 (5.8) |
| Hungary | 66 (1.6) | 542 (2.4) | 23 (1.1) | 551 (3.0) | 6 (0.5) | 552 (6.5) | 5 (0.5) | 533 (5.4) |
| Iceland | 44 (0.9) | 509 (1.9) | 39 (0.8) | 525 (1.9) | 11 (0.4) | 515 (4.4) | 6 (0.4) | 483 (6.7) |
| Iran, Islamic Rep. of | 74 (1.3) | 424 (4.1) | 18 (1.1) | 395 (6.2) | 4 (0.3) | 382 (9.1) | 4 (0.7) | 366 (9.2) |
| Israel | 68 (1.1) | 505 (3.1) | 22 (0.8) | 528 (4.7) | 5 (0.4) | 518 (8.0) | 5 (0.4) | 484 (7.6) |
| Italy | 50 (1.0) | 537 (2.7) | 36 (1.0) | 551 (3.0) | 11 (0.6) | 538 (3.9) | 3 (0.3) | 507 (9.2) |
| Kuwait | 80 (0.9) | 403 (4.2) | 13 (0.8) | 395 (6.9) | 3 (0.2) | 371 (10.9) | 3 (0.4) | 396 (9.6) |
| Latvia | 59 (1.3) | 544 (2.8) | 30 (1.0) | 546 (3.7) | 8 (0.6) | 552 (4.6) | 3 (0.4) | 533 (7.4) |
| Lithuania | 48 (1.6) | 535 (3.4) | 38 (1.2) | 557 (2.9) | 9 (0.8) | 547 (6.4) | 5 (0.5) | 520 (6.7) |
| Macedonia, Rep. of | 87 (0.8) | 449 (4.4) | 9 (0.7) | 432 (9.0) | 2 (0.3) | ~ ~ | 2 (0.3) | ~ ~ |
| Moldova, Rep. of | 62 (2.2) | 498 (4.9) | 18 (1.4) | 485 (6.8) | 6 (0.6) | 470 (8.2) | 14 (1.5) | 487 (5.5) |
| Morocco | 79 (1.4) | 358 (9.6) | 15 (1.2) | 336 (13.5) | 3 (0.4) | 315 (18.3) | 3 (0.4) | 311 (23.7) |
| Netherlands | 47 (1.3) | 552 (2.9) | 38 (1.0) | 561 (2.8) | 10 (0.7) | 553 (4.4) | 6 (0.6) | 534 (5.3) |
| New Zealand | 62 (1.5) | 526 (4.1) | 29 (1.1) | 545 (4.7) | 7 (0.7) | 531 (9.0) | 3 (0.4) | 493 (12.4) |
| Norway | 72 (1.3) | 503 (3.0) | 21 (0.9) | 502 (4.7) | 5 (0.5) | 479 (8.4) | 2 (0.3) | ~ ~ |
| Romania | 82 (1.7) | 512 (5.0) | 13 (1.0) | 518 (6.7) | 3 (0.9) | 534 (9.3) | 2 (0.3) | ~ ~ |
| Russian Federation | 69 (1.5) | 526 (4.4) | 21 (1.0) | 538 (6.6) | 6 (0.6) | 528 (7.8) | 4 (0.4) | 510 (8.6) |
| Scotland | 66 (1.7) | 526 (3.5) | 25 (1.2) | 548 (4.4) | 5 (0.5) | 534 (7.7) | 4 (0.6) | 462 (14.2) |
| Singapore | 61 (0.8) | 528 (5.3) | 28 (0.7) | 536 (5.9) | 7 (0.4) | 524 (6.6) | 4 (0.3) | 502 (9.2) |
| Slovak Republic | 48 (1.5) | 505 (3.4) | 39 (1.2) | 535 (3.6) | 8 (0.7) | 535 (4.4) | 5 (0.6) | 497 (5.3) |
| Slovenia | 62 (1.3) | 495 (2.2) | 29 (1.1) | 518 (3.1) | 4 (0.5) | 525 (6.2) | 5 (0.4) | 478 (8.9) |
| Sweden | 63 (1.3) | 563 (2.3) | 30 (1.0) | 565 (2.7) | 5 (0.4) | 545 (5.1) | 2 (0.3) | ~ ~ |
| Turkey | 77 (1.1) | 456 (3.7) | 19 (1.0) | 434 (5.1) | 2 (0.3) | ~ ~ | 2 (0.2) | ~ ~ |
| United States | 64 (1.4) | 545 (4.0) | 23 (1.1) | 553 (4.4) | 7 (0.5) | 540 (8.0) | 6 (0.6) | 479 (8.2) |
| International Avg. | 64 (0.2) | 499 (0.7) | 25 (0.2) | 505 (0.9) | 6 (0.1) | 505 (1.6) | 4 (0.1) | 476 (1.7) |

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

Background data provided by students.

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

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

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

Exhibit 7.16: Students Answering “Yes” to Incidents of Stealing, Bullying, and Hitting at School During the Last Month**ISC** 4th Grade
PIRLS 2001

| Countries | Something Was Stolen from Me | | | Something Was Stolen from Someone in My Class | | | I Was Bullied by Another Student | | |
|-----------------------|------------------------------|---------------------------|--------------------------|---|---------------------------|--------------------------|----------------------------------|---------------------------|--------------------------|
| | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" |
| Argentina | 47 (1.9) | 417 (6.8) | 443 (5.6) | r 63 (2.1) | 431 (5.6) | 434 (7.3) | r 63 (1.5) | 437 (6.3) | 422 (5.9) |
| Belize | 57 (1.8) | 328 (4.9) | 331 (7.1) | 77 (1.5) | 334 (4.7) | 313 (8.0) | 46 (2.0) | 314 (5.3) | 341 (6.0) |
| Bulgaria | 14 (1.0) | 518 (5.7) | 558 (3.7) | 29 (1.7) | 533 (5.2) | 561 (4.0) | 13 (0.9) | 517 (5.6) | 558 (3.6) |
| Canada (O,Q) | 36 (1.2) | 530 (3.1) | 553 (2.4) | 55 (1.5) | 537 (2.6) | 556 (2.8) | 31 (0.8) | 535 (2.7) | 550 (2.5) |
| Colombia | 42 (1.9) | 419 (4.8) | 427 (5.6) | 62 (2.1) | 425 (4.2) | 422 (8.1) | 24 (1.5) | 408 (5.6) | 429 (4.8) |
| Cyprus | 38 (1.7) | 490 (3.5) | 500 (3.2) | 60 (1.6) | 501 (3.5) | 489 (3.6) | 26 (1.1) | 486 (3.8) | 499 (3.1) |
| Czech Republic | 24 (1.2) | 522 (3.9) | 542 (2.2) | 49 (2.2) | 529 (2.9) | 546 (3.0) | 15 (1.1) | 522 (4.5) | 541 (2.3) |
| England | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| France | 28 (1.3) | 512 (2.8) | 532 (2.9) | 47 (1.8) | 515 (2.7) | 536 (2.8) | 28 (1.4) | 519 (3.1) | 530 (2.6) |
| Germany | 22 (0.9) | 525 (2.9) | 545 (2.0) | 44 (1.6) | 533 (2.6) | 547 (2.3) | -- | -- | -- |
| Greece | 21 (1.4) | 519 (3.3) | 527 (4.1) | 42 (2.3) | 516 (3.7) | 533 (4.2) | 26 (1.4) | 520 (4.0) | 528 (3.9) |
| Hong Kong, SAR | 32 (1.6) | 515 (4.0) | 536 (2.8) | 50 (2.1) | 523 (3.4) | 535 (3.4) | 33 (1.0) | 519 (4.1) | 534 (2.9) |
| Hungary | 30 (1.3) | 526 (2.5) | 551 (2.7) | 57 (1.9) | 538 (2.3) | 552 (3.5) | 50 (1.4) | 539 (2.2) | 549 (2.8) |
| Iceland | 20 (0.7) | 491 (2.9) | 520 (1.5) | 29 (0.7) | 503 (2.5) | 520 (1.6) | 35 (0.8) | 512 (2.4) | 516 (1.6) |
| Iran, Islamic Rep. of | 32 (1.3) | 406 (5.4) | 419 (4.5) | 49 (1.5) | 419 (4.9) | 410 (4.5) | 27 (1.2) | 402 (5.4) | 419 (4.4) |
| Israel | 41 (1.3) | 492 (3.9) | 525 (3.0) | 59 (1.5) | 508 (3.0) | 517 (4.0) | 66 (1.0) | 513 (3.1) | 509 (4.0) |
| Italy | 35 (1.3) | 529 (3.0) | 548 (2.6) | 46 (1.5) | 535 (2.9) | 546 (2.8) | 31 (1.1) | 535 (3.3) | 544 (2.4) |
| Kuwait | r 37 (1.1) | 403 (5.0) | 400 (4.6) | r 48 (1.5) | 405 (4.6) | 397 (4.7) | r 53 (1.2) | 401 (4.6) | 401 (4.9) |
| Latvia | 18 (0.9) | 524 (4.3) | 550 (2.3) | 37 (1.9) | 539 (3.2) | 549 (2.7) | 23 (1.1) | 533 (4.7) | 549 (2.3) |
| Lithuania | 10 (0.8) | 518 (5.2) | 547 (2.5) | 29 (1.7) | 530 (3.6) | 550 (2.8) | 40 (1.4) | 536 (3.3) | 550 (2.8) |
| Macedonia, Rep. of | 21 (1.3) | 415 (6.4) | 455 (4.2) | 33 (1.6) | 446 (5.2) | 448 (4.9) | 22 (1.2) | 406 (7.5) | 459 (4.1) |
| Moldova, Rep. of | 25 (1.6) | 476 (4.9) | 498 (4.2) | 47 (3.1) | 491 (5.1) | 493 (5.3) | 18 (1.6) | 477 (6.1) | 495 (4.3) |
| Morocco | 48 (2.0) | 353 (12.7) | 350 (9.1) | 58 (2.1) | 355 (11.6) | 347 (11.0) | 41 (2.3) | 338 (9.9) | 362 (11.0) |
| Netherlands | 15 (1.1) | 538 (3.5) | 557 (2.5) | 34 (2.1) | 546 (3.3) | 559 (2.6) | 36 (1.2) | 543 (3.3) | 561 (2.4) |
| New Zealand | 42 (1.7) | 519 (4.8) | 539 (3.9) | 64 (1.9) | 524 (3.4) | 542 (5.5) | 38 (1.6) | 514 (4.9) | 540 (3.6) |
| Norway | 13 (1.0) | 483 (4.8) | 503 (3.1) | 24 (1.9) | 493 (4.2) | 502 (3.2) | 23 (1.3) | 479 (4.5) | 507 (3.0) |
| Romania | 16 (1.2) | 491 (7.0) | 516 (4.8) | 38 (2.4) | 501 (4.9) | 519 (5.6) | 14 (1.5) | 481 (10.7) | 517 (4.4) |
| Russian Federation | 15 (1.0) | 515 (9.8) | 531 (3.9) | 34 (1.8) | 524 (5.7) | 531 (4.5) | 36 (1.4) | 522 (5.8) | 532 (4.2) |
| Scotland | 23 (1.2) | 504 (5.9) | 536 (3.3) | 47 (2.5) | 517 (4.1) | 539 (4.4) | 27 (1.4) | 511 (5.1) | 536 (3.8) |
| Singapore | 35 (1.0) | 516 (5.7) | 536 (5.0) | 55 (1.5) | 524 (4.9) | 536 (5.9) | 37 (1.1) | 512 (5.5) | 539 (5.1) |
| Slovak Republic | 25 (1.4) | 501 (4.9) | 524 (3.1) | 50 (2.0) | 515 (3.7) | 522 (3.9) | 46 (2.0) | 511 (3.7) | 525 (3.3) |
| Slovenia | 18 (1.2) | 487 (3.4) | 506 (2.1) | 39 (2.0) | 494 (2.9) | 507 (2.5) | 27 (1.5) | 491 (3.5) | 507 (2.3) |
| Sweden | 14 (0.8) | 542 (4.3) | 564 (2.2) | 26 (1.3) | 546 (3.0) | 566 (2.1) | 12 (0.7) | 535 (4.2) | 564 (2.1) |
| Turkey | 32 (1.6) | 432 (4.1) | 458 (3.8) | 57 (2.3) | 448 (4.1) | 452 (4.3) | 57 (1.5) | 453 (4.0) | 445 (4.3) |
| United States | 35 (1.5) | 520 (5.2) | 555 (3.9) | 55 (1.9) | 531 (4.9) | 557 (3.5) | 25 (1.1) | 530 (5.6) | 547 (3.7) |
| International Avg. | 28 (0.2) | 485 (0.9) | 505 (0.7) | 47 (0.3) | 494 (0.7) | 504 (0.8) | 33 (0.2) | 487 (0.9) | 503 (0.7) |

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

Background data provided by students.

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

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

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

Exhibit 7.16: Students Answering “Yes” to Incidents of Stealing, Bullying, and Hitting at School During the Last Month (Continued)**ISC****4th Grade**
PIRLS 2001

| Countries | Someone in My Class Was Bullied by Another Student | | | I Was Hit or Hurt by Another Student | | | Someone in My Class Was Hit or Hurt by Another Student | | |
|-----------------------|--|---------------------------|--------------------------|--------------------------------------|---------------------------|--------------------------|--|---------------------------|--------------------------|
| | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" | Percent of Students "Yes" | Average Achievement "Yes" | Average Achievement "No" |
| Argentina | r 75 (1.2) | 441 (5.9) | 405 (6.4) | r 36 (1.6) | 420 (7.5) | 439 (5.1) | r 63 (1.7) | 433 (6.3) | 430 (5.4) |
| Belize | 65 (2.0) | 333 (5.3) | 322 (6.7) | 55 (1.6) | 329 (5.4) | 330 (6.6) | 70 (2.0) | 337 (5.3) | 312 (5.6) |
| Bulgaria | 21 (1.2) | 531 (5.5) | 559 (3.9) | 22 (1.2) | 540 (4.5) | 557 (3.8) | 35 (1.5) | 553 (4.4) | 553 (3.9) |
| Canada (O,Q) | 49 (1.1) | 541 (2.6) | 550 (2.7) | 41 (0.9) | 534 (2.7) | 553 (2.6) | 60 (1.0) | 542 (2.5) | 551 (3.0) |
| Colombia | 35 (1.9) | 420 (5.4) | 425 (5.5) | 42 (1.7) | 422 (5.1) | 425 (5.3) | 52 (2.3) | 428 (5.3) | 419 (5.5) |
| Cyprus | 49 (1.2) | 500 (3.5) | 493 (3.4) | 40 (1.2) | 490 (3.5) | 500 (3.2) | 66 (1.2) | 499 (3.4) | 489 (3.6) |
| Czech Republic | 31 (2.1) | 530 (3.3) | 541 (2.5) | 20 (1.1) | 525 (4.2) | 541 (2.3) | 41 (2.0) | 532 (3.0) | 542 (2.7) |
| England | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| France | 47 (1.6) | 526 (2.9) | 527 (2.9) | 30 (1.2) | 516 (3.2) | 531 (2.5) | 47 (1.5) | 519 (3.5) | 533 (2.2) |
| Germany | -- | -- | -- | 29 (0.9) | 530 (2.6) | 545 (2.1) | 52 (1.0) | 537 (2.1) | 545 (2.6) |
| Greece | 36 (1.5) | 526 (3.8) | 526 (4.1) | 29 (1.5) | 524 (4.2) | 527 (3.6) | 40 (1.4) | 529 (3.4) | 524 (4.3) |
| Hong Kong, SAR | 62 (1.4) | 527 (3.5) | 532 (3.3) | 18 (0.9) | 511 (4.8) | 533 (2.9) | 39 (1.5) | 523 (3.8) | 533 (3.1) |
| Hungary | 67 (1.4) | 542 (2.3) | 547 (3.5) | 26 (1.0) | 536 (2.9) | 547 (2.4) | 45 (1.5) | 543 (2.4) | 544 (3.0) |
| Iceland | 47 (0.8) | 519 (2.0) | 511 (2.1) | 26 (0.7) | 504 (2.9) | 518 (1.5) | 41 (0.8) | 512 (2.1) | 517 (1.9) |
| Iran, Islamic Rep. of | 53 (1.5) | 416 (4.9) | 413 (4.8) | 26 (1.1) | 393 (5.4) | 423 (4.2) | 47 (1.5) | 413 (4.8) | 416 (5.1) |
| Israel | 79 (0.9) | 518 (2.8) | 488 (5.7) | 45 (1.0) | 501 (3.2) | 521 (3.2) | 70 (1.1) | 513 (2.9) | 507 (4.5) |
| Italy | 51 (1.3) | 539 (2.4) | 543 (2.8) | 25 (0.9) | 536 (3.2) | 543 (2.5) | 45 (1.4) | 541 (2.6) | 541 (2.8) |
| Kuwait | r 64 (1.4) | 402 (4.5) | 399 (5.3) | r 36 (1.1) | 391 (4.5) | 406 (4.8) | r 56 (1.5) | 400 (4.9) | 402 (4.6) |
| Latvia | 40 (1.5) | 541 (3.8) | 548 (2.4) | 34 (1.2) | 530 (3.2) | 553 (2.4) | 58 (1.7) | 544 (2.5) | 547 (3.1) |
| Lithuania | 50 (1.4) | 540 (2.9) | 549 (2.8) | 23 (1.1) | 532 (4.4) | 548 (2.5) | 32 (1.3) | 542 (3.5) | 545 (2.6) |
| Macedonia, Rep. of | 36 (1.3) | 439 (6.2) | 452 (4.4) | 25 (1.1) | 422 (6.0) | 456 (4.3) | 39 (1.5) | 448 (5.4) | 448 (4.6) |
| Moldova, Rep. of | 45 (2.6) | 494 (5.4) | 491 (4.7) | 48 (2.2) | 497 (5.4) | 488 (4.3) | 60 (2.6) | 492 (4.8) | 493 (5.2) |
| Morocco | 57 (2.1) | 359 (10.7) | 342 (10.8) | 29 (1.5) | 338 (11.8) | 358 (9.8) | 47 (1.9) | 346 (10.0) | 358 (11.1) |
| Netherlands | 69 (1.4) | 552 (2.9) | 559 (2.9) | 27 (1.1) | 544 (3.6) | 558 (2.3) | 53 (2.0) | 551 (3.2) | 558 (2.5) |
| New Zealand | 62 (1.6) | 527 (4.1) | 537 (4.6) | 42 (1.2) | 521 (4.7) | 538 (4.0) | 63 (1.7) | 525 (4.4) | 540 (4.8) |
| Norway | 38 (1.6) | 493 (3.7) | 505 (3.3) | 16 (1.0) | 485 (5.4) | 503 (3.0) | 28 (1.4) | 495 (4.3) | 502 (3.0) |
| Romania | 27 (1.8) | 495 (6.5) | 519 (4.9) | 28 (1.7) | 498 (5.1) | 519 (5.2) | 43 (2.3) | 509 (4.4) | 515 (6.0) |
| Russian Federation | 58 (1.8) | 531 (4.3) | 526 (5.5) | 30 (1.1) | 522 (4.9) | 531 (4.5) | 48 (1.8) | 528 (4.0) | 528 (5.4) |
| Scotland | 48 (2.0) | 522 (4.7) | 535 (4.4) | 42 (1.5) | 523 (4.1) | 533 (4.3) | 63 (1.7) | 527 (4.2) | 531 (3.9) |
| Singapore | 54 (1.4) | 520 (4.7) | 540 (6.2) | 36 (1.0) | 515 (5.8) | 537 (5.0) | 50 (1.3) | 521 (4.7) | 537 (6.0) |
| Slovak Republic | 62 (2.0) | 519 (3.0) | 519 (4.0) | 21 (1.3) | 491 (5.1) | 526 (2.8) | 50 (1.9) | 514 (3.7) | 524 (3.6) |
| Slovenia | 42 (1.8) | 501 (2.8) | 503 (2.5) | 38 (1.5) | 494 (3.0) | 507 (2.4) | 48 (1.6) | 502 (2.7) | 503 (2.6) |
| Sweden | 26 (1.3) | 547 (3.5) | 566 (2.1) | 25 (1.2) | 545 (3.6) | 566 (2.0) | 39 (1.4) | 553 (3.1) | 566 (2.1) |
| Turkey | 62 (1.5) | 456 (3.9) | 439 (4.4) | 36 (1.2) | 443 (4.4) | 453 (3.8) | 49 (1.7) | 455 (4.2) | 445 (4.1) |
| United States | 46 (1.4) | 532 (4.8) | 552 (4.0) | 28 (1.2) | 525 (5.2) | 550 (3.8) | 50 (1.7) | 530 (4.2) | 555 (4.4) |
| International Avg. | 50 (0.3) | 496 (0.8) | 499 (0.8) | 32 (0.2) | 489 (0.8) | 505 (0.7) | 50 (0.3) | 498 (0.7) | 502 (0.8) |

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

Exhibit 7.17: Index of Principals' Perceptions of School Safety (PPSS)**ISC** 4th Grade
PIRLS 2001

| Countries | High PPSS | | Medium PPSS | | Low PPSS | | Percentage of Students at High Level of PPSS |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Russian Federation | 92 (2.0) | 528 (4.6) | 7 (1.8) | 531 (11.4) | 1 (0.6) | ~ ~ |● |
| Hong Kong, SAR | 89 (3.3) | 530 (3.3) | 11 (3.3) | 525 (11.8) | 0 (0.0) | ~ ~ |● |
| Romania | 87 (2.7) | 511 (5.3) | 11 (2.6) | 520 (8.2) | 2 (1.0) | ~ ~ |● |
| Singapore | 83 (3.3) | 534 (5.7) | 17 (3.3) | 496 (15.1) | 0 (0.0) | ~ ~ |● |
| Moldova, Rep. of | 76 (3.6) | 493 (4.7) | 22 (3.4) | 486 (8.5) | 3 (1.2) | 487 (14.8) |● |
| Iran, Islamic Rep. of | 75 (3.9) | 416 (5.4) | 19 (3.7) | 398 (10.2) | 6 (1.8) | 432 (14.9) |● |
| Greece | 74 (4.7) | 533 (5.0) | 24 (4.7) | 519 (7.8) | 2 (1.4) | ~ ~ |● |
| Scotland | 74 (4.4) | 535 (4.4) | 26 (4.4) | 509 (7.8) | 0 (0.0) | ~ ~ |● |
| France | 73 (3.9) | 529 (2.8) | 25 (4.0) | 516 (7.0) | 1 (1.2) | ~ ~ |● |
| United States | 71 (4.0) | 556 (3.9) | 29 (4.0) | 515 (6.9) | 0 (0.0) | ~ ~ |● |
| Cyprus | 70 (4.9) | 494 (3.8) | 23 (4.2) | 497 (6.7) | 7 (2.6) | 498 (13.3) |● |
| Latvia | 67 (4.2) | 547 (3.2) | 29 (4.3) | 539 (4.5) | 3 (1.6) | 536 (8.1) |● |
| Macedonia, Rep. of | 66 (3.8) | 448 (5.9) | 31 (3.9) | 423 (10.4) | 3 (1.5) | 473 (31.5) |● |
| New Zealand | 65 (3.8) | 542 (4.6) | 34 (3.8) | 509 (6.9) | 1 (0.0) | ~ ~ |● |
| Lithuania | 64 (4.1) | 542 (3.5) | 36 (4.1) | 546 (4.1) | 1 (0.0) | ~ ~ |● |
| Italy | 63 (3.8) | 542 (2.8) | 24 (3.4) | 542 (6.0) | 12 (2.1) | 534 (8.9) |● |
| Turkey | 61 (4.4) | 457 (5.0) | 29 (3.9) | 436 (7.5) | 11 (2.6) | 443 (8.4) |● |
| Bulgaria | 60 (3.7) | 555 (4.1) | 36 (3.7) | 545 (8.5) | 4 (1.7) | 528 (28.2) |● |
| Norway | 60 (4.9) | 502 (3.2) | 39 (4.8) | 496 (5.7) | 1 (0.7) | ~ ~ |● |
| Sweden | 57 (4.5) | 568 (3.1) | 42 (4.6) | 551 (3.5) | 1 (0.8) | ~ ~ |● |
| Canada (O,Q) | 55 (3.6) | 552 (3.0) | 43 (3.6) | 536 (3.5) | 2 (0.9) | ~ ~ |● |
| Iceland | 52 (0.4) | 511 (1.6) | 47 (0.4) | 513 (1.9) | 1 (0.0) | ~ ~ |● |
| Slovenia | 49 (3.6) | 503 (2.8) | 51 (3.6) | 500 (3.0) | 0 (0.0) | ~ ~ |● |
| Colombia | 46 (4.6) | 434 (7.3) | 44 (4.9) | 414 (7.3) | 10 (2.7) | 404 (11.1) |● |
| Israel | 43 (4.8) | 505 (7.3) | 47 (5.0) | 517 (6.8) | 10 (2.5) | 480 (23.7) |● |
| Belize | 41 (6.0) | 311 (8.7) | 56 (6.1) | 337 (7.1) | 3 (1.6) | 319 (15.4) |● |
| Germany | 39 (3.7) | 543 (3.6) | 58 (3.6) | 537 (2.8) | 3 (1.2) | 520 (12.4) |● |
| Hungary | 38 (3.6) | 549 (3.8) | 60 (3.7) | 543 (3.4) | 2 (0.9) | ~ ~ |● |
| Czech Republic | 37 (4.6) | 538 (3.9) | 58 (4.7) | 536 (3.0) | 5 (1.5) | 538 (6.5) |● |
| Argentina | 37 (4.4) | 456 (9.2) | 46 (4.5) | 407 (8.3) | 17 (3.2) | 370 (13.6) |● |
| Kuwait | 33 (3.9) | 414 (7.7) | 33 (3.8) | 405 (6.9) | 34 (4.2) | 382 (9.7) |● |
| Morocco | 30 (4.9) | 350 (11.9) | 28 (5.1) | 345 (26.3) | 42 (5.3) | 350 (11.5) |● |
| Slovak Republic | 27 (3.6) | 524 (5.5) | 66 (3.8) | 515 (3.4) | 7 (2.4) | 518 (9.4) |● |
| Netherlands | 24 (4.1) | 565 (3.6) | 75 (4.1) | 551 (3.2) | 2 (1.2) | ~ ~ |● |
| England | -- | -- | -- | -- | -- | -- |● |
| International Avg. | 58 (0.7) | 503 (0.9) | 36 (0.7) | 493 (1.5) | 6 (0.3) | 460 (2.8) |● |

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

Index of Principal's Perceptions of School Safety (PPSS)

Based on principals' responses about the degree each was a school problem: classroom disturbances; cheating; profanity; vandalism; theft; intimidation or verbal abuse of other students; and physical conflicts among students. Average is computed on a 4-point scale: Not a problem = 1, Minor problem = 2,

Moderate problem = 3, and Serious problem = 4. High level indicates an average of 1 to less than 2. Medium level indicates an average of 2 through 3. Low level indicates an average of greater than 3 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.

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

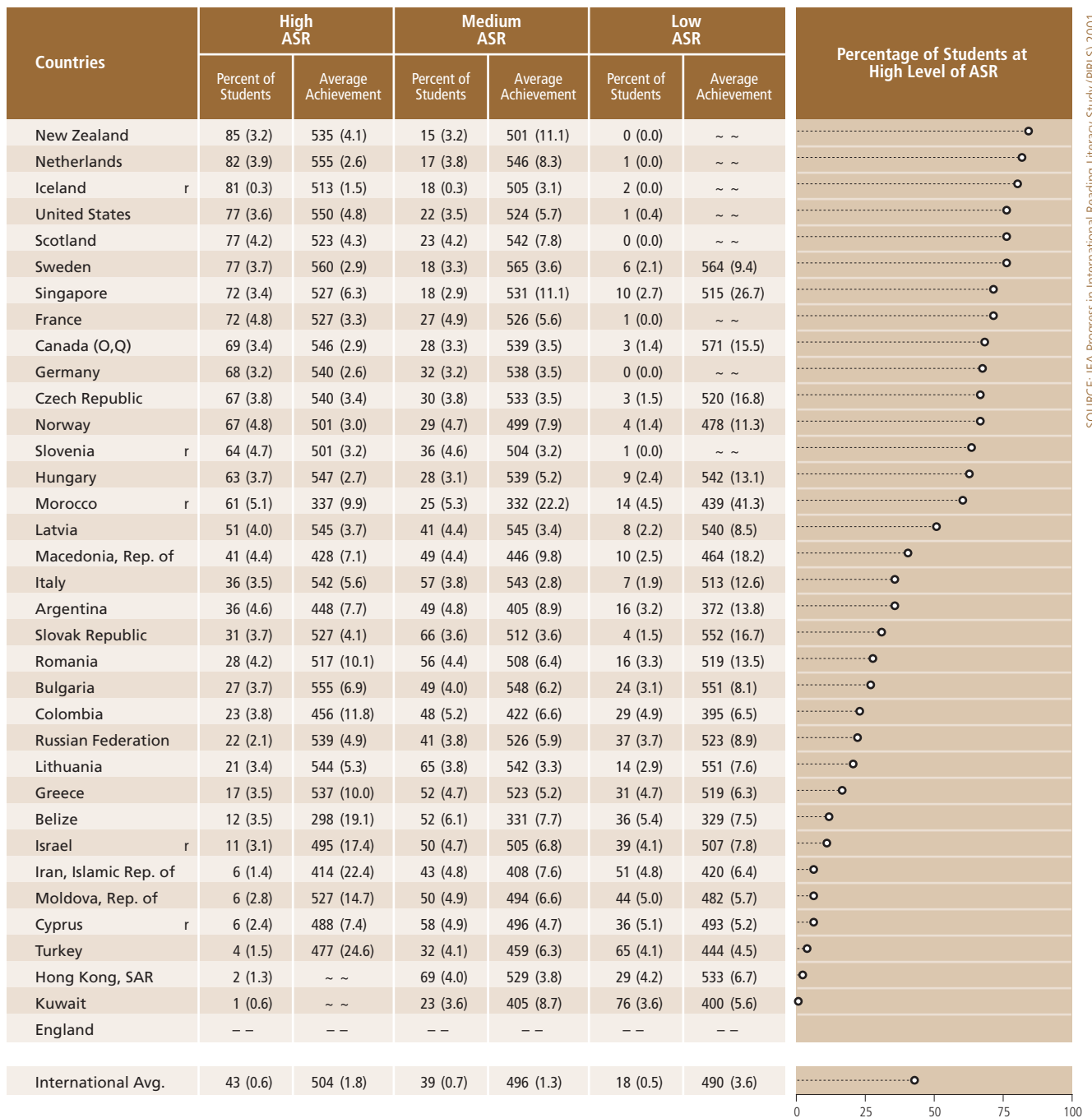
What School Resources Are Available to Support Reading?

Availability of school resources contributes to the overall school climate as well as to the academic rigor in the school. PIRLS created an Index of Availability of School Resources, presented in Exhibit 7.18, which is based on the extent to which schools' capacities to provide instruction were affected by a shortage or inadequacy of staff, basic classroom supplies, instructional materials, or the schools' buildings and grounds. A high index level indicates the capacity to provide reading instruction is not affected at all, while the medium level indicates some effect. Students in the low category attended schools affected "a lot" by a shortage or inadequacy of resources.

On average, internationally, 43 percent of students attended schools reporting adequate availability of resources, and only 18 percent were in schools heavily affected by the lack of availability. Students in schools reporting no shortage or inadequacy of resources generally had higher reading achievement than those affected "a lot" by shortages. However, schools in some countries appear better able than others to compensate for a lack of resources. More than three-quarters of students in New Zealand, The Netherlands, Iceland, the United States, Scotland, and Sweden attended schools that were not affected by a lack of resources.

While research has found that the availability of technology in classrooms has been increasing over the years, students' access to computers for instruction and specifically to the Internet varies greatly across countries. Exhibit 7.19 provides the results of schools' reports of the ratio of fourth-grade students to computers. Internationally, 33 percent of students attended schools without any computers. The majority of these students were in Iran, Macedonia, and the Russian Federation, where more than 90 percent of students attended schools without any computers available. In Canada (O,Q) and Iceland, more than three-quarters of students attended schools that had, on average, one computer for every five students or fewer. England, Hong Kong, Israel, The Netherlands, New Zealand, Norway, Singapore, Slovenia, and the United States had one computer for up to 10 students available to more than three-quarters of the student population.

Schools' access to the Internet is presented in Exhibit 7.20, along with the average number of computers available in the schools. Students in few countries had access to the Internet on all of their computers. Hong Kong and Iceland were the only two countries with all computers accessible to the Internet for at least three-quarters of their students. On average, internationally, 42 percent of students were in schools that reported having no access to the Internet on available computers. Almost all students in Iran, Kuwait, and Moldova were without access to the Internet in their schools.

Exhibit 7.18: Index of Availability of School Resources (ASR)**ISC** 4th Grade
PIRLS 2001

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

Index of Availability of School Resources (ASR)

Based on principals' responses to how much the school's capacity to provide instruction is affected by a shortage or inadequacy of the following: instructional staff; teachers qualified to teach reading; instructional materials; supplies (e.g., paper, pencils); school buildings and grounds; heating/cooling and lighting systems; instructional space (e.g., classrooms); special equipment for physically disabled students; computers

for instructional purposes; computer software for instructional purposes; computer support staff; library books; and audio-visual resources. Average is computed on a 4-point scale: Not at all = 1, A little = 2, Some = 3, and A lot = 4. High level indicates an average of 1 to less than 2. Medium level indicates an average of 2 through 3. Low level indicates an average of greater than 3 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.

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

Exhibit 7.19: Availability of Computers for Instructional Purposes
ISC 4th Grade
PIRLS 2001

| Countries | | Schools' Reports of Number of Fourth-Grade* Students per Computer | | | | | | | | | |
|-----------------------|---|---|---------------------|---------------------|---------------------|---------------------|---------------------|-----------------------|---------------------|--|---------------------|
| | | Fewer than 5 Students | | 5-10 Students | | 11-20 Students | | More than 20 Students | | Students in School Without Any Computers | |
| | | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement |
| Argentina | r | 17 (4.0) | 460 (16.8) | 22 (4.8) | 448 (11.8) | 7 (2.3) | 417 (29.0) | 17 (3.2) | 413 (16.3) | 37 (4.9) | 391 (11.8) |
| Belize | s | 4 (2.1) | 387 (12.7) | 1 (0.6) | ~ ~ | 13 (6.6) | 399 (29.4) | 4 (2.3) | 295 (19.4) | 79 (6.9) | 317 (9.5) |
| Bulgaria | r | 6 (2.0) | 549 (12.5) | 11 (3.0) | 562 (9.2) | 13 (2.9) | 578 (7.4) | 10 (2.8) | 564 (11.2) | 61 (4.7) | 536 (7.4) |
| Canada (O,Q) | r | 76 (3.2) | 544 (3.2) | 15 (2.4) | 549 (5.1) | 7 (2.1) | 548 (6.5) | 2 (1.2) | ~ ~ | 0 (0.3) | ~ ~ |
| Colombia | s | 22 (4.5) | 464 (14.8) | 20 (4.8) | 445 (10.4) | 9 (3.7) | 469 (9.2) | 5 (2.2) | 428 (11.9) | 45 (5.3) | 403 (6.1) |
| Cyprus | s | 5 (2.5) | 520 (11.6) | 27 (6.2) | 493 (7.3) | 10 (3.6) | 506 (5.5) | 8 (3.4) | 501 (14.7) | 50 (5.8) | 493 (4.2) |
| Czech Republic | | 33 (3.9) | 529 (4.4) | 38 (4.2) | 543 (3.4) | 6 (2.4) | 532 (17.4) | 3 (1.6) | 542 (5.1) | 20 (3.4) | 542 (6.9) |
| England | | 59 (4.7) | 559 (5.1) | 24 (3.8) | 553 (5.0) | 13 (3.6) | 551 (9.7) | 5 (2.0) | 541 (11.1) | 0 (0.0) | ~ ~ |
| France | | 30 (4.2) | 520 (5.7) | 30 (4.5) | 531 (4.7) | 12 (3.8) | 544 (7.5) | 14 (3.6) | 518 (6.5) | 14 (3.5) | 537 (5.5) |
| Germany | | 12 (2.8) | 544 (7.0) | 23 (3.6) | 542 (2.9) | 17 (3.5) | 540 (6.5) | 29 (3.4) | 537 (4.6) | 19 (3.2) | 538 (5.1) |
| Greece | s | 17 (4.6) | 544 (15.4) | 6 (1.7) | 567 (14.6) | 3 | 504 (16.2) | 6 (2.5) | 535 (10.6) | 68 (5.3) | 513 (4.3) |
| Hong Kong, SAR | | 55 (4.6) | 534 (4.1) | 31 (4.0) | 525 (5.0) | 2 (1.2) | ~ ~ | 4 (1.6) | 508 (8.0) | 9 (2.6) | 517 (11.7) |
| Hungary | | 32 (3.7) | 543 (4.1) | 23 (3.4) | 548 (5.4) | 2 (1.1) | ~ ~ | 3 (1.4) | 564 (16.4) | 41 (3.9) | 541 (4.5) |
| Iceland | r | 77 (0.3) | 512 (1.6) | 9 (0.2) | 518 (3.9) | 5 (0.1) | 498 (6.0) | 4 (0.1) | 512 (6.9) | 5 (0.2) | 519 (4.7) |
| Iran, Islamic Rep. of | | 0 (0.0) | ~ ~ | 0 (0.1) | ~ ~ | 0 (0.0) | ~ ~ | 2 (1.2) | ~ ~ | 98 (1.2) | 412 (4.3) |
| Israel | r | 59 (5.1) | 522 (6.5) | 27 (4.4) | 503 (9.5) | 7 (2.8) | 499 (28.9) | 0 (0.0) | ~ ~ | 7 (2.6) | 506 (23.6) |
| Italy | | 13 (2.2) | 556 (6.2) | 31 (3.4) | 541 (4.2) | 28 (3.2) | 541 (5.0) | 20 (2.8) | 539 (5.2) | 8 (1.5) | 517 (8.2) |
| Kuwait | | x x | x x | x x | x x | x x | x x | x x | x x | x x | x x |
| Latvia | r | 19 (3.0) | 548 (6.9) | 20 (4.1) | 547 (5.1) | 7 (2.6) | 538 (15.0) | 3 (1.5) | 558 (15.3) | 51 (4.1) | 543 (3.3) |
| Lithuania | r | 24 (4.0) | 538 (6.8) | 29 (4.2) | 539 (4.3) | 13 (3.3) | 555 (8.7) | 6 (2.3) | 540 (5.3) | 27 (4.4) | 543 (6.8) |
| Macedonia, Rep. of | s | 0 (0.0) | ~ ~ | 2 (1.5) | ~ ~ | 0 (0.0) | ~ ~ | 5 (2.3) | 446 (31.7) | 92 (2.7) | 443 (6.9) |
| Moldova, Rep. of | s | 3 (1.9) | 506 (10.5) | 15 (4.3) | 499 (12.0) | 6 (2.5) | 480 (17.1) | 1 (0.1) | ~ ~ | 75 (5.2) | 490 (6.9) |
| Morocco | | x x | x x | x x | x x | x x | x x | x x | x x | x x | x x |
| Netherlands | r | 39 (4.9) | 555 (3.3) | 38 (5.4) | 553 (5.7) | 20 (4.2) | 550 (5.4) | 3 (2.0) | 572 (15.3) | 0 (0.0) | ~ ~ |
| New Zealand | r | 40 (4.6) | 526 (6.4) | 38 (4.3) | 528 (7.5) | 20 (3.8) | 548 (7.7) | 1 (1.0) | ~ ~ | 0 (0.0) | ~ ~ |
| Norway | | 58 (5.2) | 498 (3.9) | 20 (4.3) | 501 (6.3) | 14 (3.6) | 513 (9.0) | 4 (2.1) | 491 (15.1) | 3 (1.7) | 489 (7.9) |
| Romania | r | 5 (2.2) | 535 (33.6) | 14 (3.9) | 523 (14.1) | 16 (3.4) | 507 (9.7) | 15 (3.5) | 523 (10.2) | 50 (4.5) | 509 (7.5) |
| Russian Federation | | 4 (2.3) | 558 (9.5) | 5 (1.5) | 534 (6.5) | 1 (0.8) | ~ ~ | 0 (0.0) | ~ ~ | 91 (2.6) | 525 (5.1) |
| Scotland | r | 42 (5.1) | 530 (6.7) | 19 (4.0) | 537 (9.6) | 25 (4.6) | 518 (8.9) | 14 (3.1) | 520 (6.0) | 0 (0.0) | ~ ~ |
| Singapore | | 68 (4.6) | 530 (6.1) | 25 (4.1) | 528 (12.1) | 5 (2.1) | 544 (26.9) | 2 (1.2) | ~ ~ | 0 (0.0) | ~ ~ |
| Slovak Republic | r | 2 (1.1) | ~ ~ | 17 (3.7) | 522 (8.1) | 11 (3.1) | 525 (7.7) | 4 (1.6) | 494 (20.0) | 66 (4.3) | 516 (4.1) |
| Slovenia | | 42 (3.7) | 493 (3.5) | 38 (4.1) | 509 (3.9) | 2 (1.1) | ~ ~ | 4 (1.6) | 493 (7.4) | 14 (2.9) | 508 (4.2) |
| Sweden | | 31 (4.3) | 563 (4.7) | 35 (4.7) | 562 (4.8) | 29 (4.6) | 559 (3.7) | 5 (2.2) | 567 (6.1) | 0 (0.0) | ~ ~ |
| Turkey | s | 9 (2.9) | 484 (12.1) | 21 (4.5) | 467 (12.0) | 5 (2.5) | 499 (36.4) | 6 (2.6) | 450 (16.4) | 58 (5.0) | 439 (5.4) |
| United States | | 64 (3.7) | 554 (4.8) | 21 (3.0) | 519 (6.2) | 11 (2.6) | 535 (8.7) | 4 (1.5) | 523 (19.1) | 0 (0.0) | ~ ~ |
| International Avg. | | 29 (0.6) | 523 (1.8) | 21 (0.7) | 525 (2.5) | 10 (0.5) | 518 (2.7) | 6 (0.4) | 507 (2.6) | 33 (0.6) | 491 (1.6) |

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

Background data provided by schools.

* 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 (~) indicates insufficient data to report achievement.

Exhibit 7.20: Schools' Reports on Number of Computers and How Many Have Access to the Internet**ISC** 4th Grade
PIRLS 2001

| Countries | Average Number of Computers Available | Percentage of Students by How Many Computers Have Internet Access | | | |
|-----------------------|---------------------------------------|---|------------|------------|------------|
| | | All | Most | Some | None |
| Argentina | r 6 (0.7) | r 8 (3.3) | r 0 (0.0) | r 20 (5.1) | r 72 (4.9) |
| Belize | s 2 (0.8) | x x | x x | x x | x x |
| Bulgaria | r 3 (0.5) | s 20 (5.4) | s 7 (3.6) | s 1 (1.0) | s 72 (6.0) |
| Canada (O,Q) | 22 (0.9) | 67 (3.0) | 21 (2.7) | 10 (2.2) | 3 (1.0) |
| Colombia | s 8 (0.9) | s 14 (4.9) | s 4 (2.5) | s 21 (5.4) | s 60 (6.7) |
| Cyprus | s 3 (0.8) | s 36 (8.8) | s 13 (6.8) | s 24 (7.2) | s 26 (5.9) |
| Czech Republic | 9 (0.5) | 39 (4.9) | 8 (2.7) | 17 (4.4) | 36 (4.8) |
| England | 14 (0.8) | 40 (4.5) | 33 (4.5) | 14 (3.6) | 12 (2.8) |
| France | 6 (0.5) | 23 (3.7) | 3 (0.4) | 29 (4.9) | 45 (5.4) |
| Germany | 6 (0.5) | 16 (3.1) | 5 (1.9) | 27 (3.7) | 52 (4.4) |
| Greece | s 3 (0.4) | x x | x x | x x | x x |
| Hong Kong, SAR | 33 (2.4) | 91 (2.6) | 3 (1.4) | 3 (1.5) | 3 (2.6) |
| Hungary | 9 (0.7) | 25 (4.9) | 16 (3.7) | 21 (4.4) | 38 (5.6) |
| Iceland | r 16 (0.1) | r 80 (0.4) | r 18 (0.4) | r 1 (0.1) | r 1 (0.1) |
| Iran, Islamic Rep. of | 0 (0.0) | r 0 (0.0) | r 0 (0.0) | r 4 (3.8) | r 96 (3.8) |
| Israel | r 21 (1.5) | r 33 (4.6) | r 11 (3.1) | r 19 (3.8) | r 36 (5.1) |
| Italy | 11 (0.7) | 18 (3.1) | 12 (2.6) | 41 (3.9) | 29 (3.7) |
| Kuwait | x x | r 0 (0.0) | r 2 (0.1) | r 4 (2.8) | r 94 (2.8) |
| Latvia | r 6 (0.6) | r 36 (6.9) | r 5 (2.6) | r 20 (5.2) | r 39 (6.2) |
| Lithuania | 8 (0.7) | r 17 (4.0) | r 8 (2.9) | r 51 (4.9) | r 23 (4.4) |
| Macedonia, Rep. of | s 0 (0.2) | r 3 (2.5) | r 2 (0.4) | r 9 (5.1) | r 86 (6.0) |
| Moldova, Rep. of | s 3 (0.6) | s 0 (0.0) | s 0 (0.0) | s 2 (0.3) | s 98 (2.0) |
| Morocco | x x | x x | x x | x x | x x |
| Netherlands | 9 (0.8) | 17 (4.0) | 7 (2.4) | 25 (4.4) | 51 (5.0) |
| New Zealand | 11 (0.7) | 59 (4.6) | 15 (3.2) | 18 (3.4) | 8 (2.3) |
| Norway | 10 (0.6) | 36 (5.3) | 28 (4.6) | 20 (4.1) | 16 (4.0) |
| Romania | r 4 (0.5) | r 11 (4.3) | r 5 (2.6) | r 11 (5.4) | r 73 (6.2) |
| Russian Federation | 1 (0.4) | 8 (4.0) | 0 (0.0) | 17 (6.5) | 75 (8.4) |
| Scotland | r 9 (0.7) | 24 (4.2) | 18 (3.8) | 16 (3.1) | 42 (4.9) |
| Singapore | 83 (3.1) | 59 (3.4) | 20 (2.8) | 15 (2.9) | 6 (1.8) |
| Slovak Republic | r 2 (0.3) | s 1 (0.1) | s 2 (1.8) | s 17 (6.1) | s 80 (6.3) |
| Slovenia | 10 (0.4) | 75 (4.0) | 8 (2.6) | 11 (2.8) | 7 (2.4) |
| Sweden | 9 (0.7) | 53 (4.6) | 25 (4.3) | 17 (3.3) | 4 (1.8) |
| Turkey | s 9 (1.4) | s 47 (9.1) | s 2 (2.0) | s 11 (4.5) | s 40 (8.0) |
| United States | 27 (1.5) | 56 (4.3) | 22 (3.8) | 16 (2.9) | 6 (1.6) |
| International Avg. | 11 (0.2) | 32 (0.8) | 10 (0.5) | 17 (0.7) | 42 (0.8) |

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

Background data provided by schools.

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

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

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



Chapter 8

Students' Reading Attitudes, Self-Concept, and Out-of-School Activities

Literacy 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. Stu-

dents 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?

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-

Student attitudes toward reading were generally positive.

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)**ISC****4th Grade**
PIRLS 2001

| Countries | High SATR | | Medium SATR | | Low SATR | | Percentage of Students at High Level of SATR |
|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--|
| | Percent of Students | Average Achievement | Percent of Students | Average Achievement | Percent of Students | Average Achievement | |
| Iran, Islamic Rep. of | 71 (1.9) | 432 (4.0) | 27 (1.8) | 375 (4.7) | 3 (0.3) | 344 (14.5) | |
| Moldova, Rep. of | 65 (1.9) | 506 (4.3) | 33 (1.9) | 470 (4.7) | 2 (0.3) | ~ ~ | |
| Macedonia, Rep. of | 62 (1.5) | 480 (4.0) | 37 (1.5) | 395 (5.7) | 1 (0.2) | ~ ~ | |
| Greece | 61 (1.7) | 536 (3.8) | 33 (1.4) | 509 (4.9) | 6 (0.6) | 507 (9.3) | |
| Romania | 60 (1.7) | 539 (4.5) | 38 (1.7) | 476 (6.2) | 1 (0.2) | ~ ~ | |
| Bulgaria | 60 (1.6) | 573 (3.3) | 36 (1.4) | 524 (4.8) | 4 (0.5) | 510 (10.8) | |
| Turkey | 59 (1.5) | 478 (3.3) | 40 (1.4) | 410 (4.6) | 1 (0.2) | ~ ~ | |
| Slovenia | 59 (1.4) | 523 (2.4) | 35 (1.3) | 475 (3.4) | 6 (0.6) | 469 (6.9) | |
| France | 58 (1.1) | 548 (2.4) | 39 (1.2) | 499 (3.3) | 3 (0.3) | 480 (5.9) | |
| Cyprus | 57 (1.3) | 513 (3.5) | 37 (1.0) | 471 (3.6) | 7 (0.7) | 486 (7.0) | |
| Italy | 56 (1.3) | 555 (2.5) | 38 (1.2) | 524 (3.2) | 6 (0.5) | 523 (5.0) | |
| Russian Federation | 54 (1.8) | 544 (3.8) | 42 (1.7) | 510 (6.0) | 4 (0.4) | 519 (6.0) | |
| Canada (O,Q) | 54 (1.0) | 566 (2.4) | 38 (1.0) | 523 (2.6) | 8 (0.4) | 511 (4.7) | |
| Sweden | 54 (1.1) | 581 (2.1) | 39 (0.9) | 542 (2.6) | 7 (0.6) | 520 (4.6) | |
| Singapore | 54 (1.3) | 561 (4.6) | 42 (1.2) | 490 (5.8) | 5 (0.3) | 506 (7.2) | |
| New Zealand | 51 (1.3) | 560 (4.2) | 41 (1.3) | 499 (4.4) | 8 (0.8) | 507 (6.9) | |
| Germany | 50 (0.9) | 563 (1.8) | 40 (0.7) | 520 (2.5) | 10 (0.5) | 510 (3.2) | |
| Hungary | 50 (1.2) | 565 (2.7) | 40 (1.0) | 525 (2.4) | 10 (0.8) | 522 (4.2) | |
| Hong Kong, SAR | 49 (1.2) | 545 (2.7) | 46 (1.1) | 513 (3.5) | 5 (0.3) | 510 (6.9) | |
| Kuwait | 49 (1.2) | 419 (4.6) | 47 (1.2) | 385 (5.2) | 4 (0.4) | 371 (14.5) | |
| Iceland | 49 (1.0) | 538 (1.9) | 45 (1.0) | 495 (1.9) | 6 (0.4) | 471 (4.3) | |
| Morocco | 48 (2.2) | 383 (12.7) | 49 (2.2) | 323 (10.2) | 3 (1.0) | 319 (19.7) | |
| Scotland | 47 (1.3) | 554 (3.9) | 42 (1.1) | 510 (4.3) | 11 (0.9) | 498 (5.6) | |
| Colombia | 47 (1.6) | 445 (5.1) | 50 (1.5) | 405 (5.0) | 3 (0.3) | 433 (8.3) | |
| Lithuania | 46 (1.5) | 560 (2.5) | 48 (1.4) | 531 (3.1) | 6 (0.6) | 524 (5.8) | |
| Israel | 44 (1.4) | 534 (3.1) | 48 (1.2) | 488 (3.9) | 8 (0.6) | 508 (6.0) | |
| England | 44 (1.4) | 584 (3.9) | 43 (1.2) | 531 (3.8) | 13 (0.9) | 521 (5.2) | |
| Norway | 44 (1.2) | 529 (3.4) | 47 (1.0) | 481 (3.4) | 9 (0.6) | 460 (6.7) | |
| Slovak Republic | 44 (1.5) | 540 (3.0) | 50 (1.3) | 504 (3.4) | 6 (0.6) | 495 (5.7) | |
| Netherlands | 43 (1.3) | 575 (2.4) | 42 (1.0) | 543 (2.8) | 15 (0.8) | 528 (3.6) | |
| Argentina | 43 (1.3) | 453 (6.4) | 52 (1.1) | 417 (5.7) | 4 (0.5) | 424 (11.6) | |
| Latvia | 43 (1.6) | 566 (2.6) | 49 (1.5) | 530 (2.6) | 8 (0.6) | 528 (3.7) | |
| United States | 42 (1.1) | 569 (3.7) | 44 (0.9) | 528 (4.4) | 13 (0.9) | 513 (5.1) | |
| Czech Republic | 40 (1.2) | 561 (3.2) | 52 (1.2) | 525 (2.7) | 7 (0.6) | 500 (3.7) | |
| Belize | 33 (1.4) | 372 (6.9) | 62 (1.4) | 310 (5.2) | 5 (0.6) | 311 (9.3) | |
| International Avg. | 51 (0.2) | 524 (0.7) | 43 (0.2) | 479 (0.7) | 6 (0.1) | 478 (1.6) | |

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

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.

() 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 8.2: Index of Students' Attitudes Toward Reading (SATR) by Gender**ISC** 4th Grade
PIRLS 2001

| Countries | High SATR | | Medium SATR | | Low SATR | |
|-----------------------|---------------------|----------|---------------------|------------|---------------------|------------|
| | Percent of Students | | Percent of Students | | Percent of Students | |
| | Girls | Boys | Girls | Boys | Girls | Boys |
| Argentina | 50 (1.6) ● | 36 (1.5) | 48 (1.5) | 57 (1.3) ● | 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 (O,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 | 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) ● |
| United States | 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.

() 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 8.3: Index of Students' Reading Self Concept (SRSC)**ISC** 4th Grade
PIRLS 2001

| Countries | High SRSC | | Medium SRSC | | Low SRSC | | 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) | ~ ~ |○ |
| Bulgaria | 52 (1.4) | 583 (3.3) | 44 (1.3) | 524 (4.4) | 4 (0.4) | 500 (9.4) |○ |
| Slovenia | 52 (1.1) | 528 (2.1) | 45 (1.1) | 478 (2.8) | 3 (0.3) | 438 (11.2) |○ |
| 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) |○ |
| 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) |○ |
| Netherlands | 48 (0.9) | 568 (2.8) | 47 (0.9) | 546 (2.5) | 5 (0.4) | 508 (5.4) |○ |
| Iceland | 48 (0.8) | 536 (1.8) | 49 (0.8) | 497 (1.9) | 3 (0.3) | 452 (8.4) |○ |
| 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) |○ |
| United States | 46 (1.3) | 569 (3.7) | 47 (1.1) | 525 (4.5) | 7 (0.6) | 490 (7.0) |○ |
| Canada (O,Q) | 46 (0.8) | 570 (2.5) | 49 (0.7) | 528 (2.7) | 5 (0.3) | 490 (5.3) |○ |
| Macedonia, Rep. of | 45 (1.3) | 490 (3.9) | 53 (1.3) | 413 (5.1) | 2 (0.3) | ~ ~ |○ |
| Germany | 43 (0.8) | 564 (2.4) | 50 (0.8) | 526 (2.0) | 6 (0.3) | 494 (4.0) |○ |
| Romania | 42 (1.5) | 545 (5.1) | 54 (1.4) | 493 (4.9) | 4 (0.7) | 452 (12.7) |○ |
| Turkey | 40 (1.3) | 484 (4.0) | 58 (1.3) | 429 (3.7) | 3 (0.3) | 393 (13.6) |○ |
| Slovak Republic | 37 (1.2) | 544 (3.0) | 56 (1.2) | 506 (3.1) | 6 (0.5) | 481 (6.5) |○ |
| 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) |○ |
| Singapore | 35 (0.9) | 556 (4.7) | 59 (0.8) | 516 (5.4) | 5 (0.3) | 487 (6.6) |○ |
| Moldova, Rep. of | 34 (1.8) | 523 (5.5) | 60 (1.8) | 479 (3.7) | 6 (0.6) | 465 (7.2) |○ |
| Czech Republic | 33 (1.0) | 560 (3.4) | 60 (1.0) | 530 (2.5) | 6 (0.5) | 496 (5.1) |○ |
| England | 33 (0.9) | 588 (3.6) | 58 (1.0) | 542 (3.8) | 9 (0.5) | 493 (6.6) |○ |
| Lithuania | 32 (1.0) | 572 (3.5) | 60 (1.1) | 533 (2.7) | 8 (0.6) | 514 (5.3) |○ |
| New Zealand | 32 (0.9) | 572 (3.9) | 61 (1.0) | 514 (4.3) | 7 (0.5) | 483 (8.5) |○ |
| 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) |○ |
| Colombia | 23 (1.1) | 467 (6.2) | 72 (1.1) | 411 (4.3) | 4 (0.5) | 412 (9.8) |○ |
| Belize | 23 (1.2) | 380 (7.4) | 69 (1.3) | 317 (5.0) | 8 (0.6) | 296 (10.2) |○ |
| 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) |○ |

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

Index of Students' Reading Self 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 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 8.4: Index of Students' Reading Self Concept (SRSC) by Gender**ISC** 4th Grade
PIRLS 2001

| Countries | High SRSC | | Medium SRSC | | Low SRSC | |
|-----------------------|---------------------|----------|---------------------|------------|---------------------|------------|
| | Percent of Students | | Percent of Students | | Percent of Students | |
| | Girls | Boys | Girls | Boys | Girls | Boys |
| Argentina | 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) ● |
| Canada (O,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 | 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' Reading Self 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 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.

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.

Exhibit 8.5: Students Read for Fun 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 ^r | 37 (1.1) | 424 (6.9) | 24 (1.1) | 436 (6.0) | 12 (0.8) | 418 (10.2) | 28 (1.2) | 428 (6.6) |
| Belize | 31 (1.2) | 336 (6.9) | 26 (0.9) | 327 (6.5) | 13 (0.9) | 311 (8.3) | 30 (1.3) | 332 (7.0) |
| Bulgaria | 51 (1.6) | 570 (3.8) | 28 (1.0) | 551 (3.9) | 11 (1.0) | 529 (9.4) | 10 (1.0) | 497 (8.4) |
| Canada (O,Q) | 39 (1.1) | 571 (2.9) | 23 (0.7) | 543 (2.7) | 12 (0.5) | 527 (3.0) | 25 (0.9) | 513 (2.6) |
| Colombia | 49 (1.8) | 415 (4.9) | 26 (1.0) | 438 (5.4) | 10 (0.6) | 435 (8.2) | 15 (1.0) | 427 (7.2) |
| Cyprus | 46 (1.1) | 503 (3.6) | 31 (1.0) | 500 (3.9) | 12 (0.9) | 481 (6.5) | 12 (0.9) | 472 (5.8) |
| Czech Republic | 38 (1.3) | 555 (3.1) | 33 (1.2) | 540 (2.2) | 12 (0.8) | 524 (3.9) | 17 (0.9) | 504 (4.2) |
| England | 33 (1.3) | 583 (4.1) | 26 (0.9) | 554 (4.8) | 14 (0.9) | 555 (4.3) | 27 (1.3) | 516 (4.4) |
| France | 50 (1.2) | 548 (2.7) | 26 (0.9) | 517 (3.6) | 9 (0.6) | 506 (4.8) | 15 (0.8) | 483 (3.9) |
| Germany | 48 (0.8) | 555 (2.2) | 24 (0.7) | 535 (2.4) | 11 (0.4) | 525 (3.2) | 18 (0.8) | 517 (3.2) |
| Greece | 46 (1.5) | 533 (4.3) | 34 (1.2) | 524 (4.7) | 14 (0.8) | 516 (5.2) | 6 (0.5) | 491 (10.3) |
| Hong Kong, SAR | 21 (0.8) | 539 (3.3) | 38 (0.8) | 532 (3.4) | 26 (0.7) | 525 (3.4) | 14 (0.6) | 511 (4.2) |
| Hungary | 40 (1.2) | 558 (3.1) | 33 (1.0) | 536 (2.9) | 16 (0.8) | 543 (2.9) | 11 (0.6) | 521 (2.9) |
| Iceland | 52 (0.8) | 533 (1.9) | 22 (0.7) | 508 (2.5) | 9 (0.5) | 489 (4.9) | 18 (0.6) | 479 (2.7) |
| Iran, Islamic Rep. of | 35 (1.2) | 415 (4.8) | 39 (1.5) | 423 (5.4) | 12 (0.6) | 408 (5.6) | 14 (1.1) | 396 (4.8) |
| Israel | 44 (1.1) | 528 (3.6) | 27 (0.8) | 511 (4.2) | 13 (0.7) | 497 (6.4) | 17 (0.8) | 484 (4.3) |
| Italy | 31 (1.1) | 561 (3.2) | 24 (0.8) | 546 (3.1) | 10 (0.6) | 537 (5.1) | 35 (1.0) | 521 (3.0) |
| Kuwait ^r | 33 (0.8) | 413 (4.9) | 37 (1.0) | 403 (4.6) | 17 (0.7) | 394 (5.4) | 13 (0.6) | 373 (7.5) |
| Latvia | 44 (1.3) | 561 (2.8) | 33 (0.9) | 539 (3.1) | 10 (0.7) | 540 (4.7) | 13 (0.9) | 515 (3.6) |
| Lithuania | 53 (1.5) | 553 (2.9) | 31 (1.3) | 540 (3.6) | 10 (0.7) | 524 (4.8) | 6 (0.6) | 520 (7.4) |
| Macedonia, Rep. of | 47 (1.5) | 457 (5.1) | 28 (1.0) | 448 (5.3) | 12 (1.3) | 420 (11.2) | 13 (0.9) | 440 (8.0) |
| Moldova, Rep. of | 50 (2.2) | 501 (4.3) | 33 (1.5) | 490 (4.7) | 10 (0.8) | 484 (8.0) | 7 (0.8) | 467 (8.2) |
| Morocco | 32 (1.9) | 337 (9.8) | 37 (1.5) | 353 (9.4) | 17 (1.3) | 362 (14.8) | 14 (2.3) | 385 (15.3) |
| Netherlands | 37 (1.2) | 577 (2.7) | 20 (0.8) | 558 (3.5) | 10 (0.6) | 547 (3.5) | 34 (1.1) | 531 (3.0) |
| New Zealand | 43 (1.4) | 563 (4.3) | 23 (0.9) | 523 (4.8) | 13 (0.7) | 513 (7.6) | 20 (1.1) | 482 (4.8) |
| Norway | 39 (1.1) | 527 (4.0) | 28 (0.9) | 497 (3.6) | 12 (0.6) | 490 (5.7) | 22 (1.0) | 462 (4.3) |
| Romania | 28 (1.8) | 514 (7.0) | 30 (1.2) | 515 (5.3) | 16 (1.2) | 521 (8.4) | 27 (1.8) | 508 (5.7) |
| Russian Federation | 59 (1.3) | 533 (4.1) | 29 (1.1) | 527 (5.9) | 6 (0.5) | 509 (7.2) | 6 (0.8) | 512 (5.3) |
| Scotland | 31 (1.1) | 558 (4.3) | 23 (0.9) | 533 (5.0) | 11 (0.5) | 532 (6.0) | 35 (1.6) | 500 (4.0) |
| Singapore | 30 (1.2) | 561 (6.6) | 23 (0.6) | 531 (5.2) | 14 (0.4) | 517 (6.1) | 33 (1.1) | 505 (4.3) |
| Slovak Republic | 40 (1.2) | 529 (3.9) | 33 (0.9) | 522 (3.0) | 14 (0.8) | 516 (4.4) | 13 (0.8) | 485 (4.4) |
| Slovenia | 45 (1.3) | 518 (2.4) | 29 (0.9) | 497 (3.1) | 12 (0.7) | 492 (4.3) | 14 (0.9) | 473 (4.7) |
| Sweden | 44 (0.8) | 579 (2.7) | 32 (0.8) | 556 (3.0) | 13 (0.6) | 547 (3.2) | 11 (0.7) | 523 (3.5) |
| Turkey | 38 (1.1) | 459 (4.3) | 36 (1.0) | 449 (4.8) | 13 (0.6) | 438 (4.8) | 13 (0.7) | 439 (5.2) |
| United States | 35 (1.2) | 564 (3.8) | 22 (1.0) | 553 (4.9) | 12 (0.7) | 541 (6.3) | 32 (1.0) | 515 (5.0) |
| International Avg. | 40 (0.2) | 515 (0.8) | 29 (0.2) | 502 (0.8) | 12 (0.1) | 492 (1.1) | 18 (0.2) | 478 (1.0) |

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

Background data provided by students.

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

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

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

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

Background data provided by students.

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

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

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

Exhibit 8.7: Students Read Stories or Novels Outside of School by GenderISC
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 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 (O,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

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

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

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

Exhibit 8.8: Students Read for Information 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 | 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 (O,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) |

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

*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.

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

Exhibit 8.9: Students Read for Information Outside of School by Gender***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 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 (O,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) ● |
| 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

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

*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.

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

Exhibit 8.10: Parents Talk with Their Child About What the Child is 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 | s | 43 (1.3) | 432 (5.9) | 34 (1.1) | 433 (6.8) | 12 (0.8) | 430 (9.2) | 11 (0.8) | 406 (10.0) |
| Belize | s | 36 (1.8) | 341 (6.1) | 38 (1.7) | 336 (6.3) | 15 (1.3) | 320 (9.7) | 11 (1.3) | 287 (9.3) |
| Bulgaria | | 48 (1.4) | 560 (3.6) | 34 (1.0) | 557 (4.2) | 11 (0.8) | 547 (8.7) | 7 (1.1) | 496 (12.5) |
| Canada (O,Q) | r | 29 (0.9) | 556 (3.4) | 49 (0.9) | 549 (2.4) | 18 (0.7) | 547 (3.1) | 4 (0.3) | 534 (7.4) |
| Colombia | | 36 (1.5) | 425 (5.0) | 38 (1.2) | 423 (5.0) | 15 (0.9) | 435 (8.0) | 11 (0.8) | 420 (6.2) |
| Cyprus | s | 38 (1.0) | 493 (4.4) | 42 (1.1) | 496 (4.4) | 15 (0.8) | 491 (6.6) | 4 (0.5) | 462 (10.3) |
| Czech Republic | | 14 (0.9) | 535 (4.0) | 48 (1.2) | 541 (3.1) | 31 (1.0) | 543 (3.0) | 7 (0.5) | 527 (7.2) |
| England | s | 30 (1.0) | 572 (5.2) | 54 (1.1) | 571 (3.7) | 14 (0.8) | 574 (7.3) | 3 (0.5) | 554 (14.1) |
| France | | 31 (0.9) | 528 (3.2) | 47 (0.8) | 530 (3.1) | 16 (0.6) | 531 (3.4) | 6 (0.5) | 503 (6.1) |
| Germany | | 17 (0.5) | 539 (2.9) | 45 (0.8) | 546 (2.3) | 27 (0.8) | 546 (2.6) | 11 (0.5) | 531 (4.4) |
| Greece | | 65 (1.4) | 522 (3.8) | 25 (1.0) | 534 (5.6) | 6 (0.6) | 532 (7.2) | 4 (0.6) | 526 (9.4) |
| Hong Kong, SAR | | 14 (0.7) | 534 (3.9) | 33 (1.1) | 532 (3.3) | 33 (0.8) | 528 (3.2) | 20 (0.9) | 526 (3.5) |
| Hungary | | 36 (1.0) | 541 (2.5) | 46 (0.9) | 547 (2.7) | 15 (0.7) | 554 (3.7) | 3 (0.4) | 533 (8.5) |
| Iceland | r | 39 (0.8) | 510 (2.1) | 44 (0.8) | 521 (1.9) | 14 (0.6) | 524 (4.3) | 4 (0.4) | 511 (7.4) |
| Iran, Islamic Rep. of | | 32 (0.9) | 429 (4.4) | 33 (1.0) | 423 (5.1) | 19 (0.6) | 396 (5.6) | 16 (1.1) | 391 (5.4) |
| Israel | | x x | x x | x x | x x | x x | x x | x x | x x |
| Italy | | 21 (0.7) | 552 (3.3) | 53 (1.0) | 544 (2.6) | 15 (0.6) | 549 (3.4) | 10 (0.5) | 526 (5.4) |
| Kuwait | r | 50 (0.8) | 403 (5.0) | 30 (0.7) | 403 (4.6) | 11 (0.4) | 404 (6.6) | 8 (0.4) | 379 (6.8) |
| Latvia | | 31 (1.2) | 542 (2.8) | 44 (1.3) | 550 (3.0) | 18 (0.7) | 550 (4.9) | 7 (0.6) | 538 (5.8) |
| Lithuania | | 30 (1.1) | 532 (3.7) | 41 (0.9) | 544 (2.9) | 22 (1.0) | 559 (3.4) | 6 (0.5) | 547 (6.9) |
| Macedonia, Rep. of | r | 67 (1.2) | 447 (5.2) | 26 (0.9) | 455 (7.1) | 5 (0.4) | 461 (10.2) | 3 (0.7) | 450 (17.0) |
| Moldova, Rep. of | | 38 (1.3) | 499 (4.2) | 43 (1.3) | 493 (4.7) | 12 (0.7) | 489 (7.3) | 7 (0.6) | 465 (6.4) |
| Morocco | | -- | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | s | 18 (1.0) | 561 (4.9) | 44 (1.4) | 565 (3.0) | 28 (1.1) | 564 (2.6) | 10 (0.7) | 559 (4.4) |
| New Zealand | r | 29 (1.3) | 536 (5.0) | 49 (1.4) | 544 (3.7) | 18 (0.9) | 531 (6.5) | 4 (0.4) | 495 (11.4) |
| Norway | | 23 (1.0) | 488 (4.9) | 49 (1.2) | 505 (3.6) | 23 (1.2) | 512 (4.4) | 5 (0.4) | 504 (9.9) |
| Romania | | 45 (1.2) | 517 (4.8) | 36 (1.3) | 516 (5.0) | 12 (0.8) | 515 (11.1) | 7 (0.8) | 470 (12.0) |
| Russian Federation | | 48 (1.1) | 528 (4.4) | 36 (0.8) | 532 (5.5) | 11 (0.7) | 526 (6.2) | 5 (0.3) | 515 (5.5) |
| Scotland | s | 31 (1.2) | 541 (4.9) | 53 (1.1) | 542 (4.8) | 13 (0.8) | 555 (5.7) | 3 (0.6) | 506 (12.2) |
| Singapore | | 22 (0.6) | 536 (5.3) | 39 (0.7) | 532 (5.1) | 26 (0.6) | 532 (5.2) | 13 (0.5) | 514 (7.4) |
| Slovak Republic | | 30 (1.0) | 513 (3.6) | 47 (0.8) | 522 (3.0) | 18 (0.8) | 530 (4.2) | 5 (0.4) | 518 (8.2) |
| Slovenia | | 27 (0.8) | 500 (3.1) | 52 (0.9) | 501 (2.4) | 18 (0.8) | 514 (3.8) | 3 (0.3) | 516 (10.6) |
| Sweden | | 20 (0.8) | 561 (3.4) | 49 (0.9) | 563 (2.5) | 24 (0.7) | 567 (2.6) | 6 (0.4) | 563 (4.8) |
| Turkey | | 38 (1.1) | 464 (4.2) | 35 (1.0) | 451 (4.4) | 14 (0.8) | 443 (5.6) | 13 (1.0) | 422 (5.8) |
| United States | | -- | -- | -- | -- | -- | -- | -- | -- |
| International Avg. | | 34 (0.2) | 507 (0.7) | 42 (0.2) | 510 (0.8) | 17 (0.1) | 509 (1.1) | 7 (0.1) | 490 (1.5) |

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

Background data provided by parents.

() 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 8.11: Students Talk with Their Families About What the Students are 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 | 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 (O,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) |

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

Background data provided by students.

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

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

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

Exhibit 8.12: Students Spend Time Watching Television or Videos on a Normal School Day**ISC****4th Grade**
PIRLS 2001

| 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 (O,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 | 51 (1.3) | 404 (3.9) | 30 (1.1) | 399 (6.4) | 10 (0.6) | 395 (7.9) | 9 (0.5) | 396 (6.6) | 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) |

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

Background data provided by students.

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

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

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



A

Appendix A

Overview of PIRLS Procedures

History

With the Progress in International Reading Literacy Study (PIRLS), the International Association for the Evaluation of Educational Achievement (IEA) continues its mission to conduct comparative studies of student achievement in school subjects to inform educational policies and practices in countries around the world. Since its inception in 1959, the IEA has conducted studies on a wide range of topics and subjects including mathematics, science, language, civics, and reading. By providing a cross-national perspective on educational systems and on organizational and instructional practices, IEA studies have contributed greatly to current understanding of the educational process. PIRLS 2001 is a large international study of the reading literacy of young children around the world. It is designed to measure children's reading literacy achievement, to provide a baseline for future studies of trends in achievement, and to gather information about children's home and school experiences in learning to read.

In 1970, IEA conducted its first reading study, a study of reading comprehension in 15 countries.¹ This was followed in 1991 by the IEA Reading Literacy Study,² which studied student reading literacy achievement in 32 countries. PIRLS is the successor to these studies, and was influenced particularly

1 Thorndike, R.L. (1973). Reading comprehension in fifteen countries: An empirical study. *International studies in evaluation: Vol. 3*. Stockholm: Almqvist & Wiksell.

2 Elley, W.B. (Ed.). (1994). *The IEA study of reading literacy: Achievement and instruction in thirty-two school systems*. Oxford, England: Elsevier Science Ltd.

by the Reading Literacy Study, which served as a starting point for its development. PIRLS 2001 is intended to be the first in a continuing five-year cycle of trend studies in reading literacy, and has been designed from the outset to monitor progress in reading achievement into the future. The IEA scheduled the PIRLS data collection for 2001 to coincide with the 10th anniversary of its 1991 Reading Literacy Study. In order to provide countries that participated in the 1991 Reading Literacy Study an opportunity to measure changes from 1991 to 2001, PIRLS 2001 also included an option to re-administer the 1991 reading literacy test in 2001, at the same time as the main PIRLS assessment. The results of this study, known as the Trends in IEA's Reading Literacy Study, are presented in a separate report.³

Participants in PIRLS

Thirty-five countries took part in the 2001 PIRLS assessment. Of these countries, nine participated in the Trends in IEA's Reading Literacy Study to measure changes between 1991 and 2001 in student performance as measured by the 1991 reading literacy test (see Exhibit A.1).

Developing the PIRLS Tests

The assessment framework and specifications⁴ for PIRLS was developed in collaboration with the PIRLS Reading Development Group (RDG) and with the assistance of the National Research Coordinators (NRCs) from the 35 countries participating in the study. The framework underwent several iterations in response to reviews and comments from the PIRLS countries and the reading research community, and embodies the ideas and interests of many individuals and organizations around the world. The IEA 1991 Reading Literacy Study served as the foundation for PIRLS, providing a basis for the PIRLS definition of reading literacy, and for establishing its framework and developing its assessment instruments. Although the 1991 study provided the groundwork for PIRLS, the PIRLS framework and instruments are new; reflecting the IEA's commitment to be forward-thinking, incorporating in PIRLS the latest approaches to measuring reading literacy.

3 Martin, M.O., Mullis, I.V.S., Gonzalez, E.J., & Kennedy, A.M. (2003). *Trends in children's reading literacy achievement 1991-2001: IEA's repeat in nine countries of the 1991 Reading Literacy Study*. Chestnut Hill, MA: Boston College.

4 See Campbell, J.R., Kelly, D.L., Mullis, I.V.S., Martin, M.O., & Sainsbury, M. (2001). *Framework and specifications for PIRLS assessment 2001* (2nd ed.). Chestnut Hill, MA: Boston College.

Exhibit A.1: Countries Participating in PIRLS 2001 and the Trends in IEA's Reading Literacy Study

ISC

4th Grade
PIRLS 2001

| Countries | PIRLS 2001 | Trends Study |
|-----------------------|------------|--------------|
| Argentina | ● | |
| Belize | ● | |
| Bulgaria | ● | |
| Canada (O,Q) | ● | |
| Colombia | ● | |
| Cyprus | ● | |
| Czech Republic | ● | |
| England | ● | |
| France | ● | |
| Germany | ● | |
| Greece | ● | ● |
| Hong Kong, SAR | ● | |
| Hungary | ● | ● |
| Iceland | ● | ● |
| Iran, Islamic Rep. of | ● | |
| Israel | ● | |
| Italy | ● | ● |
| Kuwait | ● | |
| Latvia | ● | |
| Lithuania | ● | |
| Macedonia, Rep. of | ● | |
| Moldova, Rep. of | ● | |
| Morocco | ● | |
| Netherlands | ● | |
| New Zealand | ● | ● |
| Norway | ● | |
| Romania | ● | |
| Russian Federation | ● | |
| Scotland | ● | |
| Singapore | ● | ● |
| Slovak Republic | ● | |
| Slovenia | ● | ● |
| Sweden | ● | ● |
| Turkey | ● | |
| United States | ● | ● |

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

The PIRLS assessment framework focuses on three aspects of reading literacy:

- Processes of comprehension
- Purposes for reading
- Reading behaviors and attitudes.

The first two aspects, the processes of comprehension and purposes for reading, form the basis of the written test of reading comprehension. The last aspect, the behaviors and attitudes, is addressed by the student questionnaire.

Readers construct meaning in different ways. They focus on and retrieve specific ideas, make inferences, interpret and integrate information and ideas, and examine or evaluate textual features. These four processes of comprehension were used in the PIRLS assessment to develop the comprehension questions for the passages presented to students. Across the assessment, a combination of questions, each dealing with one of the processes, enabled students to demonstrate a range of abilities and skills in constructing meaning from written texts.

Reading literacy is directly related to the reasons why people read. These reasons include reading for personal interest or pleasure, reading to participate in society, and reading to learn. For young readers, emphasis is placed on reading for interest or pleasure and reading to learn. The PIRLS assessment focused on the two purposes that account for most of the reading done by young students both in and out of school:

- Reading for literary experience
- Reading to acquire and use information.

Because both types of reading are important at this age, the PIRLS assessment contained an equal proportion of materials assessing each purpose. Although the assessment distinguished between purposes for reading, the processes and strategies readers used for both purposes are perhaps more similar than different. The processes of comprehension and purposes for reading were the foundation for the PIRLS written assessment of reading comprehension.

Exhibit A.2 portrays the interaction of the two: each process is assessed within each purpose for reading.

The selection of the assessment passages and the development of the items and scoring guides were the result of an intensive process of collaboration, piloting, and review – spanning more than two years.⁵ In selecting the passages for PIRLS, every effort was made to minimize cultural bias. Potential stimulus passages were collected from as many countries as possible, and the final selection was based, in part, on the national and cultural representation of the entire set of assessment passages. Everything possible was done to ensure that the PIRLS assessment represented the curricula of the participating countries, and that the items did not exhibit bias towards or against particular countries. Draft passages and items were subjected to full-scale field testing before the instruments for the main data collection were finalized.⁶ The final version of the assessment was endorsed by the NRCs of the participating countries.

Exhibit A.3 shows the distribution of items by reading purpose and process category. There were 98 items in the assessment, approximately half of which were multiple-choice and half constructed-response. The constructed-response items required students to generate and write their own answers. Some items required short answers while others demanded a more elaborate response. In scoring the test, correct answers to most questions (including all those in multiple-choice format) were worth one point. However, responses to questions seeking more elaborate responses were evaluated for partial credit, with a fully-correct answer being awarded two or three points. Thus, the total number of score points available for analyses somewhat exceeds the number of items in the assessment. The student answer booklet provided an indication to the student of how many score points would be awarded for each answer, and how much writing was expected. Almost two-thirds of the score points came from constructed-response items.

5 For a full discussion of the PIRLS 2001 test development effort, see Sainsbury, M. and Campbell, J.R. (2003). Developing the PIRLS reading assessment and scoring guides. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

6 Approximately 48,000 students from almost 1,100 schools in 30 countries participated in the field test.

Exhibit A.2: Aspects of Reading Literacy**ISC****4th Grade**
PIRLS 2001**PIRLS Reading Assessment – Reading Purposes and Processes**

| | | Purposes for Reading | |
|-----------------------------------|--|-----------------------------|-----------------------------|
| | | Literary Experience | Acquire and Use Information |
| Processes of Comprehension | Focus on and Retrieve Explicitly Stated Information | | |
| | Make Straightforward Inferences | | |
| | Interpret and Integrate Ideas and Information | | |
| | Examine and Evaluate Content, Language, and Textual Elements | | |

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

Exhibit A.3: Distribution of Items by Reading Purpose and Process Category**ISC****4th Grade
PIRLS 2001**

| Reading Purpose | Percentage of Items | Total Number of Items | Number of Multiple-Choice Items | Number of Constructed-Response Items ¹ | Number of Score Points ² |
|-----------------------------|---------------------|-----------------------|---------------------------------|---|-------------------------------------|
| Literary Experience | 52 | 51 | 25 | 26 | 66 |
| Acquire and Use Information | 48 | 47 | 21 | 26 | 67 |
| Total | 100 | 98 | 46 | 52 | 133 |

| Reading Process Involved | Percentage of Items | Total Number of Items | Number of Multiple-Choice Items | Number of Constructed-Response Items ¹ | Number of Score Points ² |
|---|---------------------|-----------------------|---------------------------------|---|-------------------------------------|
| Focus on and Retrieve Explicitly Stated Information and Ideas | 26 | 25 | 15 | 10 | 29 |
| Make Straightforward Inferences | 28 | 27 | 14 | 13 | 31 |
| Interpret and Integrate Ideas and Information | 32 | 31 | 8 | 23 | 54 |
| Examine and Evaluate Content, Language, and Textual Elements | 15 | 15 | 9 | 6 | 19 |
| Total | 100 | 98 | 46 | 52 | 133 |

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

1 Constructed-response items include both short-answer and extended-response types.

2 In scoring the tests, correct answers to most items were worth one point. However, responses to some constructed-response items were evaluated for partial credit with a fully correct answer awarded up to three points. Thus, the number of score points exceeds the number of items in the test.

PIRLS Test Design

Given the broad coverage goals of the PIRLS framework and its emphasis on the use of authentic texts, the specifications for the pool of reading passages and accompanying items included extensive testing time. The PIRLS RDG found that a valid assessment of two purposes for reading – reading for literary experience and reading to acquire and use information – required at least eight passages and items, four for each purpose. Students were given 40 minutes to complete a passage. With eight passages, a total assessment time would take up 320 minutes. While such an amount of assessment materials would provide good coverage of the reading material children meet in their everyday lives, it was an unreasonable expectation to administer the entire set of reading passages and test items to any one child. So as not to overburden the young children participating in PIRLS, the testing time was limited to 80 minutes (two passages) per student, with an additional 15–30 minutes allotted for a student questionnaire.

With eight reading passages in total, but just two to be given to any one student, passages and their accompanying items were assigned to student test booklets according to a matrix sampling plan. The eight passages were distributed across 10 booklets, two per booklet, so that passages were paired together in a booklet in as many different ways as possible. Each student booklet consisted of two 40-minute blocks of passages and items, which were accompanied by the Student Questionnaire. So as to present at least some passages in a more natural, authentic setting, two blocks (one literary and one informational) were presented in colorized, magazine-type format, with the questions appearing in a separate booklet. This booklet, Booklet 10, is referred to as the PIRLS “Reader.”

Background Questionnaires

The PIRLS questionnaires are grounded in a conceptual model relating reading outcomes – students’ reading literacy achievement and attitudes – to home, school, communal, and national contexts.⁷ PIRLS 2001 administered a broad array of questionnaires to collect data on these educational contexts.

7 See Kelly, D.L. (2003). Developing the PIRLS background questionnaires. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

The students who were tested answered questions pertaining to their home and school experiences in learning to read – including instructional experiences, self-perception and attitudes towards reading, out-of-school reading habits, computer use, home literacy resources, and basic demographic information. Parents or caregivers of the sampled students responded to questions about the students' early reading experiences, child-parent literacy interactions, parents' reading habits and attitudes, home-school connections, and demographic and socioeconomic indicators. The teachers of the sampled students responded to questions about characteristics of the class tested, instructional activities for teaching reading, classroom resources, assessment practices, and about their education, training, and opportunities for professional development. The principals of schools responded to questions about enrollment and school characteristics, school organization for reading instruction, school staffing and resources, home-school connections, and the school environment.

Translation Verification

The PIRLS instruments were prepared in English and translated into 31 languages. Five countries administered the assessment in two languages, and seven countries administered one or more questionnaires in more than one language. The languages in which the test was administered most often were English (seven countries) and Arabic (three countries). In addition, it was sometimes necessary to modify the international versions for cultural reasons, even in the seven countries that tested in English. This process represented an enormous effort for the national centers, with many checks along the way. Before the translated instruments were used in schools, they were put through an exhaustive process of review and verification.⁸ The translation effort included: (1) developing explicit guidelines for translation and cultural adaptation; (2) translation of the instruments by the national centers in accordance with the guidelines – using two or more independent translations; (3) verification of translation quality by professional translators from an independent translation company; (4) corrections by national centers in accordance with the suggestions made; (5) verification by the PIRLS International Study Center

8 More details about the translation verification procedures can be found in Kelly, D.L., and Malak, B. (2003). Translating the PIRLS reading assessment and questionnaires. In M.O. Martin, I.V.S. Mullis, and A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

that the corrections were made; and (6) a series of statistical checks after the testing to detect items that did not perform comparably across countries.

For the participating countries, the bulk of the translation effort took place prior to the field test. After the field test, countries needed only to make any changes to the items or passages that resulted from analysis of the field test data. The PIRLS data-collection instruments were verified twice – the field test versions before the field test and the final versions before the main data collection. Countries, therefore, had the benefit of two careful reviews of their translations. They also had the benefit of diagnostic item statistics from the field test data analysis, which helped to identify mistranslations that could be corrected before the main data collection.

Sample Implementation and Participation Rates

PIRLS 2001 had as its target population students enrolled in the upper of the two adjacent grades that contained the largest proportion of 9-year-old students at the time of testing.⁹ Beyond the age criterion embedded in the above definition, the target grade should represent that point in the curriculum where students have essentially finished learning the basic reading skills and will focus more on “reading to learn” in the subsequent grades. Thus, the PIRLS 2001 target grade was expected to be fourth grade in most countries (some countries have students significantly older than nine years of age). Exhibit A.4 shows any differences in coverage between the international and national desired populations.

Selecting valid and efficient samples is critical to the quality and success of an international comparative study such as PIRLS. The accuracy of the survey results depends upon the quality of the sampling information available when planning the sample, and on the care with which the sampling activities are conducted. For PIRLS, NRCs worked on all phases of sampling in conjunction with staff from Statistics Canada. NRCs were trained in how to select the school and student samples, and in how to use the sampling software provided by the IEA Data Processing Center. In consultation with the PIRLS 2001 sampling referee (Keith Rust, Westat, Inc.), staff from Statistics Canada reviewed the national sampling plans, sampling data, sampling frames,

9 See Foy, P. and Joncas, M. (2003). PIRLS sampling design. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

Exhibit A.4: Coverage of PIRLS Target Population
ISC 4th Grade
PIRLS 2001

| Countries | International Desired Population | | National Desired Population | | |
|-----------------------|----------------------------------|--------------------------------------|-----------------------------|--------------------------|--------------------|
| | Country Coverage | Notes on Coverage | School-Level Exclusions | Within-Sample Exclusions | Overall Exclusions |
| Argentina | 100% | | 3.7% | 0.4% | 4.1% |
| Belize | 100% | | 0.8% | 0.0% | 0.8% |
| Bulgaria | 100% | | 2.7% | 0.0% | 2.7% |
| Canada (O,Q) | 60% | Provinces of Ontario and Quebec only | 3.1% | 2.2% | 5.4% |
| Colombia | 100% | | 3.2% | 0.1% | 3.3% |
| Cyprus | 100% | | 0.0% | 2.0% | 2.0% |
| Czech Republic | 100% | | 5.0% | 0.0% | 5.0% |
| England | 100% | | 1.8% | 3.9% | 5.7% |
| France | 100% | | 5.1% | 0.3% | 5.3% |
| Germany | 100% | | 0.8% | 1.0% | 1.8% |
| Greece | 100% | | 2.0% | 5.3% | 7.3% |
| Hong Kong, SAR | 100% | | 2.8% | 0.0% | 2.8% |
| Hungary | 100% | | 2.1% | 0.0% | 2.1% |
| Iceland | 100% | | 1.8% | 1.3% | 3.1% |
| Iran, Islamic Rep. of | 100% | | 0.5% | 0.0% | 0.5% |
| Israel | 100% | | 16.5% | 5.9% | 22.4% |
| Italy | 100% | | 0.0% | 2.9% | 2.9% |
| Kuwait | 100% | | 0.0% | 0.0% | 0.0% |
| Latvia | 100% | | 4.3% | 0.3% | 4.6% |
| Lithuania | 90% | Lithuanian speaking students only | 1.3% | 2.5% | 3.8% |
| Macedonia, Rep. of | 100% | | 3.8% | 0.4% | 4.2% |
| Moldova, Rep. of | 100% | | 0.5% | 0.0% | 0.5% |
| Morocco | 100% | | 1.0% | 0.0% | 1.0% |
| Netherlands | 100% | | 3.4% | 0.3% | 3.7% |
| New Zealand | 100% | | 1.6% | 1.7% | 3.2% |
| Norway | 100% | | 1.9% | 0.8% | 2.8% |
| Romania | 100% | | 2.6% | 1.9% | 4.5% |
| Russian Federation | 100% | | 2.8% | 3.8% | 6.6% |
| Scotland | 100% | | 3.8% | 0.8% | 4.7% |
| Singapore | 100% | | 1.3% | 0.1% | 1.4% |
| Slovak Republic | 100% | | 1.4% | 0.6% | 2.0% |
| Slovenia | 100% | | 0.0% | 0.3% | 0.3% |
| Sweden | 100% | | 2.5% | 2.5% | 5.0% |
| Turkey | 100% | | 3.9% | 0.0% | 3.9% |
| United States | 100% | | 0.6% | 4.7% | 5.3% |

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

and sample selections. The sampling documentation was used by the International Study Center (in consultation with Statistics Canada and the sampling referee) to evaluate the quality of the samples.

The basic design of the sample used in PIRLS 2001 was a two-stage stratified cluster design. The first stage consisted of a sampling of schools, and the second stage of a sampling of intact classrooms from the target grade in the sampled schools. Most countries sampled 150 schools and one intact classroom from each school.¹⁰ Countries that selected large school samples included some countries with very large populations (such as the United States and the Russian Federation) as well as countries such as Canada, Germany, and Hungary which required accurate survey estimates for regions or provinces. Schools were selected with probability proportional to size, and classrooms with equal probabilities. Upon recommendation from Statistics Canada, some countries chose to sample more than one classroom per selected school.

Exhibits A.5 and A.6 present achieved sample sizes for schools and students, respectively. Exhibit A.7 shows the participation rates for schools, students, and overall – both with, and without, the use of replacement schools. For analysis and reporting, students' questionnaire data, along with questionnaire data from their parents, teachers, and school principals, were linked to students' achievement data. Exhibit A.8 shows the percentage of students with available student, parent, teacher, and principal questionnaire data.

Data Collection

Each participating country was responsible for carrying out all aspects of the data collection, using standardized procedures developed for the study. Training manuals were created for school coordinators and test administrators that explained procedures for receipt and distribution of materials, as well as for the activities related to the testing sessions. These manuals covered procedures for test security, standardized scripts to regulate directions and timing, rules for answering students' questions, and steps to ensure that identification on the test booklets and questionnaires corresponded to the information on the forms used to track students.

10 For further detail, see Joncas, M. (2003). PIRLS sampling weights and participation rates. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

Exhibit A.5: School Sample Sizes
ISC
4th Grade
PIRLS 2001

| Countries | Number of Schools in Original Sample | Number of Eligible Schools in Original Sample | Number of Schools in Original Sample that Participated | Number of Replacement Schools that Participated | Total Number of Schools that Participated |
|-----------------------|--------------------------------------|---|--|---|---|
| Argentina | 150 | 150 | 133 | 5 | 138 |
| Belize | 150 | 150 | 119 | 1 | 120 |
| Bulgaria | 177 | 176 | 170 | 0 | 170 |
| Canada (O,Q) | 387 | 387 | 359 | 13 | 372 |
| Colombia | 150 | 150 | 119 | 28 | 147 |
| Cyprus | 150 | 150 | 148 | 2 | 150 |
| Czech Republic | 150 | 148 | 135 | 6 | 141 |
| England | 150 | 150 | 88 | 43 | 131 |
| France | 150 | 150 | 140 | 5 | 145 |
| Germany | 216 | 215 | 209 | 2 | 211 |
| Greece | 170 | 170 | 133 | 12 | 145 |
| Hong Kong, SAR | 150 | 150 | 115 | 32 | 147 |
| Hungary | 220 | 220 | 216 | 0 | 216 |
| Iceland | 140 | 140 | 133 | 0 | 133 |
| Iran, Islamic Rep. of | 184 | 184 | 180 | 4 | 184 |
| Israel | 150 | 150 | 144 | 3 | 147 |
| Italy | 184 | 184 | 164 | 20 | 184 |
| Kuwait | 150 | 150 | 133 | 2 | 135 |
| Latvia | 148 | 147 | 133 | 8 | 141 |
| Lithuania | 150 | 150 | 84 | 62 | 146 |
| Macedonia, Rep. of | 150 | 150 | 145 | 1 | 146 |
| Moldova, Rep. of | 150 | 150 | 133 | 17 | 150 |
| Morocco | 158 | 158 | 117 | 0 | 117 |
| Netherlands | 150 | 150 | 80 | 54 | 134 |
| New Zealand | 156 | 156 | 144 | 12 | 156 |
| Norway | 162 | 160 | 119 | 17 | 136 |
| Romania | 150 | 150 | 144 | 0 | 144 |
| Russian Federation | 206 | 206 | 205 | 1 | 206 |
| Scotland | 150 | 150 | 113 | 5 | 118 |
| Singapore | 196 | 196 | 196 | 0 | 196 |
| Slovak Republic | 150 | 150 | 130 | 20 | 150 |
| Slovenia | 150 | 150 | 147 | 1 | 148 |
| Sweden | 150 | 149 | 142 | 4 | 146 |
| Turkey | 154 | 154 | 154 | 0 | 154 |
| United States | 200 | 200 | 125 | 49 | 174 |

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

Exhibit A.6: Student Sample Sizes (Unweighted)**ISC****4th Grade
PIRLS 2001**

| Countries | Within-School Student Participation (Weighted Percentage) | Number of Sampled Students in Participating Schools | Number of Students Withdrawn from Class/School | Number of Students Excluded | Number of Eligible Students | Number of Students Absent | Number of Students Assessed |
|-----------------------|---|---|--|-----------------------------|-----------------------------|---------------------------|-----------------------------|
| Argentina | 91% | 3769 | 132 | 13 | 3624 | 324 | 3300 |
| Belize | 94% | 3137 | 32 | 0 | 3105 | 196 | 2909 |
| Bulgaria | 97% | 3633 | 53 | 0 | 3580 | 120 | 3460 |
| Canada (O,Q) | 94% | 9151 | 99 | 228 | 8824 | 571 | 8253 |
| Colombia | 96% | 5582 | 225 | 5 | 5352 | 221 | 5131 |
| Cyprus | 97% | 3149 | 2 | 63 | 3084 | 83 | 3001 |
| Czech Republic | 94% | 3220 | 10 | 0 | 3210 | 188 | 3022 |
| England | 94% | 3528 | 46 | 122 | 3360 | 204 | 3156 |
| France | 97% | 3673 | 20 | 11 | 3642 | 104 | 3538 |
| Germany | 88% | 8997 | 27 | 58 | 8912 | 1186 | 7726 |
| Greece | 97% | 2718 | 0 | 151 | 2567 | 73 | 2494 |
| Hong Kong, SAR | 99% | 5192 | 69 | 0 | 5123 | 73 | 5050 |
| Hungary | 97% | 4819 | 14 | 0 | 4805 | 139 | 4666 |
| Iceland | 87% | 4320 | 29 | 58 | 4233 | 557 | 3676 |
| Iran, Islamic Rep. of | 98% | 7703 | 104 | 0 | 7599 | 169 | 7430 |
| Israel | 96% | 4400 | 33 | 214 | 4153 | 180 | 3973 |
| Italy | 98% | 3703 | 15 | 103 | 3585 | 83 | 3502 |
| Kuwait | 91% | 7874 | 0 | 0 | 7874 | 741 | 7133 |
| Latvia | 93% | 3266 | 8 | 11 | 3247 | 228 | 3019 |
| Lithuania | 85% | 3114 | 7 | 72 | 3035 | 468 | 2567 |
| Macedonia, Rep. of | 97% | 3904 | 42 | 14 | 3848 | 137 | 3711 |
| Moldova, Rep. of | 96% | 3679 | 9 | 0 | 3670 | 137 | 3533 |
| Morocco | 93% | 3452 | 35 | 0 | 3417 | 264 | 3153 |
| Netherlands | 98% | 4256 | 11 | 14 | 4231 | 119 | 4112 |
| New Zealand | 96% | 2720 | 68 | 53 | 2599 | 111 | 2488 |
| Norway | 92% | 3784 | 25 | 26 | 3733 | 274 | 3459 |
| Romania | 97% | 3744 | 23 | 2 | 3719 | 94 | 3625 |
| Russian Federation | 97% | 4281 | 24 | 42 | 4215 | 122 | 4093 |
| Scotland | 95% | 2912 | 20 | 26 | 2866 | 149 | 2717 |
| Singapore | 98% | 7162 | 46 | 4 | 7112 | 110 | 7002 |
| Slovak Republic | 96% | 4034 | 33 | 18 | 3983 | 176 | 3807 |
| Slovenia | 95% | 3112 | 10 | 8 | 3094 | 142 | 2952 |
| Sweden | 93% | 6678 | 38 | 145 | 6495 | 451 | 6044 |
| Turkey | 97% | 5390 | 123 | 0 | 5267 | 142 | 5125 |
| United States | 96% | 4091 | 55 | 121 | 3915 | 152 | 3763 |

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

Exhibit A.7: Participation Rates (Weighted)**ISC****4th Grade
PIRLS 2001**

| Countries | School Participation | | Student Participation | Overall Participation | |
|-----------------------|----------------------|-------------------|-----------------------|-----------------------|-------------------|
| | Before Replacement | After Replacement | | Before Replacement | After Replacement |
| Argentina | 89% | 92% | 91% | 81% | 84% |
| Belize | 80% | 80% | 94% | 75% | 75% |
| Bulgaria | 97% | 97% | 97% | 93% | 93% |
| Canada (O,Q) | 90% | 97% | 94% | 85% | 91% |
| Colombia | 80% | 98% | 96% | 76% | 94% |
| Cyprus | 98% | 100% | 97% | 95% | 97% |
| Czech Republic | 90% | 95% | 94% | 85% | 90% |
| England | 57% | 87% | 94% | 54% | 82% |
| France | 93% | 97% | 97% | 90% | 94% |
| Germany | 98% | 98% | 88% | 86% | 86% |
| Greece | 78% | 85% | 97% | 76% | 82% |
| Hong Kong, SAR | 73% | 98% | 99% | 72% | 97% |
| Hungary | 98% | 98% | 97% | 95% | 95% |
| Iceland | 95% | 95% | 87% | 82% | 82% |
| Iran, Islamic Rep. of | 97% | 100% | 98% | 95% | 98% |
| Israel | 96% | 98% | 96% | 92% | 94% |
| Italy | 90% | 100% | 98% | 88% | 98% |
| Kuwait | 87% | 89% | 91% | 80% | 81% |
| Latvia | 89% | 96% | 93% | 83% | 89% |
| Lithuania | 56% | 97% | 85% | 47% | 83% |
| Macedonia, Rep. of | 97% | 97% | 97% | 94% | 94% |
| Moldova, Rep. of | 84% | 100% | 96% | 81% | 96% |
| Morocco | 74% | 74% | 93% | 69% | 69% |
| Netherlands | 53% | 89% | 98% | 52% | 87% |
| New Zealand | 94% | 100% | 96% | 90% | 96% |
| Norway | 82% | 89% | 92% | 76% | 82% |
| Romania | 96% | 96% | 97% | 93% | 93% |
| Russian Federation | 100% | 100% | 97% | 97% | 97% |
| Scotland | 76% | 79% | 95% | 72% | 74% |
| Singapore | 100% | 100% | 98% | 98% | 98% |
| Slovak Republic | 88% | 100% | 96% | 84% | 96% |
| Slovenia | 98% | 99% | 95% | 94% | 94% |
| Sweden | 97% | 99% | 93% | 90% | 92% |
| Turkey | 100% | 100% | 97% | 97% | 97% |
| United States | 61% | 86% | 96% | 59% | 83% |

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

Exhibit A.8: Percentage of Students with Any Available Student, Parent, Teacher, and Principal Questionnaire Data

ISC

4th Grade
PIRLS 2001

| Countries | Percent of Student with Any Available Data | | | |
|-----------------------|--|----------------------|-----------------------|-------------------------|
| | Student Questionnaire | Parent Questionnaire | Teacher Questionnaire | Principal Questionnaire |
| Argentina | 96 | 71 | 96 | 98 |
| Belize | 95 | 67 | 87 | 89 |
| Bulgaria | 100 | 96 | 98 | 99 |
| Canada (O,Q) | 100 | 83 | 98 | 97 |
| Colombia | 100 | 90 | 97 | 99 |
| Cyprus | 99 | 68 | 98 | 89 |
| Czech Republic | 100 | 89 | 100 | 99 |
| England | 100 | 55 | 94 | 96 |
| France | 99 | 92 | 95 | 97 |
| Germany | 100 | 89 | 96 | 95 |
| Greece | 100 | 88 | 95 | 94 |
| Hong Kong, SAR | 98 | 95 | 97 | 97 |
| Hungary | 100 | 96 | 97 | 97 |
| Iceland | 99 | 84 | 93 | 85 |
| Iran, Islamic Rep. of | 100 | 98 | 100 | 100 |
| Israel | 100 | 47 | 97 | 97 |
| Italy | 100 | 97 | 100 | 100 |
| Kuwait | 80 | 82 | 90 | 95 |
| Latvia | 100 | 96 | 100 | 100 |
| Lithuania | 100 | 98 | 99 | 99 |
| Macedonia, Rep. of | 100 | 77 | 97 | 98 |
| Moldova, Rep. of | 99 | 99 | 99 | 100 |
| Morocco | 98 | 0 | 91 | 95 |
| Netherlands | 99 | 66 | 88 | 88 |
| New Zealand | 99 | 84 | 97 | 96 |
| Norway | 99 | 91 | 99 | 100 |
| Romania | 100 | 98 | 98 | 98 |
| Russian Federation | 100 | 99 | 100 | 100 |
| Scotland | 99 | 63 | 95 | 92 |
| Singapore | 100 | 99 | 100 | 100 |
| Slovak Republic | 99 | 97 | 100 | 100 |
| Slovenia | 100 | 98 | 99 | 98 |
| Sweden | 98 | 92 | 95 | 98 |
| Turkey | 99 | 99 | 100 | 100 |
| United States | 100 | 0 | 99 | 96 |

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

Each country was responsible for conducting quality control procedures and describing this effort in the Survey Activities report documenting procedures used in the study. In addition, the International Study Center considered it essential to independently monitor compliance with standardized procedures. NRCs were asked to nominate a person, unconnected with their national center, to serve as quality control monitors (QCMs) for their countries. The International Study Center developed manuals for the quality control monitors and, in a two-day training session, briefed them about PIRLS, the responsibilities of the national centers in conducting the study, and their own roles and responsibilities. Monitors from 33 countries attended the training session conducted by the International Study Center staff. In countries where the data collection schedule made it impossible for one quality control monitor to visit all the sampled schools, monitors who attended the training session were asked to recruit other monitors as necessary, in order to allow for efficiency in the coverage of the territory and testing timetable. In all, 71 quality control monitors participated.¹¹ They interviewed NRCs about data collection plans and procedures, and visited a sample of 15 schools in each country, where they observed testing sessions and interviewed school coordinators.¹² All together, quality control monitors visited observed testing sessions and interviewed school coordinators in 475 schools from 33 countries.

The results of the interviews indicate that, in general, NRCs had prepared well for data collection and – despite the heavy demands of the schedule and shortages of resources – were able to conduct the data collection efficiently and professionally. Similarly, the PIRLS test appeared to have been administered in compliance with international procedures – including the activities before the testing session, along with school-level activities related to receiving, distributing, and returning material from national centers.

Scoring the Constructed-Response Items

Because almost two-thirds of the score points came from constructed-response items, PIRLS needed to develop procedures for reliably evaluating student responses within and across countries. To ensure reliable scoring procedures based on the PIRLS rubrics, the International Study Center prepared detailed

11 Operational constraints did not permit QCM visits to be conducted in Argentina or Iceland.

12 Steps taken to ensure high-quality data collection in PIRLS are described in detail in Gonzalez, E.J., & Kennedy, A.M. (2003). Quality control in the PIRLS data collection. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

guides containing the rubrics and explanations of how to implement them, together with example student responses for the various rubric categories. These guides, along with training packets containing extensive examples of student responses for practice in applying the rubrics, were used as a basis for intensive training in scoring the constructed-response items. The training sessions were designed to help representatives of national centers, who would then be responsible for training personnel in their own countries to apply the scoring rubrics reliably.

To gather and document empirical information about the within-country agreement among scorers, PIRLS arranged to have systematic sub-samples of at least 200 students' responses to each item scored independently by two readers. Exhibit A.9 shows the average range of the within-country exact percent of agreement between scorers on the free-response items. Scoring reliability within countries was high – the percentage of exact agreement, on average, across countries, was 93 percent.

To monitor the consistency with which the scoring rubrics were applied across countries, PIRLS collected from the countries that administered PIRLS in English a sample of 200 student responses to 25 constructed-response questions from four of the assessment passages. This set of 5,000 student responses was then sent to each country having scorers proficient in English, and were all scored independently by two of these scorers. Each of these responses was scored by 55 scorers from the countries that participated.¹³ Making all possible comparisons among scorers gave 1,485 comparisons for each student response to each item, and 297,000 total comparisons when aggregated across all 200 student responses to that item. Agreement across countries was defined in terms of the percentage of these comparisons that were in exact agreement. Exhibit A.10 shows this percentage of exact agreement for each of the 25 items. As shown in this exhibit, the percentage of agreement averaged across the 25 items was 85 percent.

Test Reliability

Exhibit A.11 displays the reading test reliability coefficient for each country. This coefficient is the median KR-20 reliability across the nine test booklets

13 Scorers proficient in English were available in 28 of the 35 PIRLS countries. Only one English-proficient scorer was available in Macedonia. In the Russian Federation, resources permitted only half of the English-language responses to be scored.

and the PIRLS Reader. Median reliabilities ranged from 0.83 in The Netherlands to 0.91 in England, Israel, Macedonia, New Zealand, Romania, and Singapore. The international median (0.88) is the median of the reliability coefficients for all countries.

Data Processing

To ensure the availability of comparable, high-quality data for analysis, PIRLS took rigorous quality control steps to create the international database.¹⁴ PIRLS prepared manuals and software for countries to use in creating and checking their data files, so that the information would be in a standardized international format before being forwarded to the IEA Data Processing Center in Hamburg for creation of the international database. Upon arrival at the Data Processing Center, the data underwent an exhaustive cleaning process. This involved several iterative steps and procedures designed to identify, document, and correct deviations from the international instruments, file structures, and coding schemes. The process also emphasized consistency of information within national data sets and appropriate linking among the student, parent, teacher, and school data files.

Throughout the process, the data were checked and double-checked by the IEA Data Processing Center, the International Study Center, and the national centers. The national centers were contacted regularly, and given multiple opportunities to review the data for their countries. In conjunction with the IEA Data Processing Center, the International Study Center reviewed item statistics for each cognitive item in each country to identify poorly performing items.¹⁵ In general, the items exhibited very good psychometric properties in all countries. On only two occasions was an item deleted for a country; once because of a translation error in the student booklet, and once because of a misinterpretation of a scoring rubric.

IRT Scaling and Data Analysis

The general approach to reporting the PIRLS achievement data was based primarily on item response theory (IRT) scaling methods.¹⁶ Student reading achievement was summarized using a family of 2- and 3-parameter IRT models

14 These steps are detailed in Itzlinger, U., & Schwippert, K. (2003). Creating and checking the PIRLS database. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

15 See Mullis, I.V.S., Martin, M.O., & Kennedy, A.M. (2003). Reviewing the PIRLS item statistics. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

16 For a detailed description of the PIRLS scaling, see Gonzalez, E.J. (2003). Scaling the PIRLS reading assessment data. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

Exhibit A.9: PIRLS Within-Country Constructed-Response Scoring Reliability Data**ISC****4th Grade**
PIRLS 2001

| Countries | Correctness Score Agreement | | |
|-----------------------|---|-------------------------------------|---------|
| | Average of Exact Percent Agreement Across Items | Range of Exact Percent of Agreement | |
| | | Minimum | Maximum |
| Argentina | 86 | 71 | 95 |
| Belize | 92 | 86 | 97 |
| Bulgaria | 83 | 60 | 99 |
| Canada (O,Q) | 87 | 66 | 99 |
| Colombia | 83 | 65 | 100 |
| Cyprus | 96 | 86 | 100 |
| Czech Republic | 97 | 82 | 100 |
| England | 96 | 81 | 100 |
| France | 96 | 87 | 100 |
| Germany | 89 | 71 | 100 |
| Greece | 98 | 92 | 100 |
| Hong Kong, SAR | 88 | 61 | 97 |
| Hungary | 94 | 80 | 100 |
| Iceland | 86 | 70 | 99 |
| Iran, Islamic Rep. of | 95 | 90 | 99 |
| Israel | 91 | 83 | 97 |
| Italy | 94 | 68 | 100 |
| Kuwait | – | – | – |
| Latvia | 92 | 64 | 99 |
| Lithuania | 88 | 68 | 100 |
| Macedonia, Rep. of | 94 | 85 | 98 |
| Moldova, Rep. of | 94 | 83 | 99 |
| Morocco | – | – | – |
| Netherlands | 90 | 67 | 100 |
| New Zealand | 97 | 89 | 100 |
| Norway | 92 | 81 | 99 |
| Romania | 94 | 76 | 100 |
| Russian Federation | 98 | 91 | 100 |
| Scotland | 93 | 76 | 100 |
| Singapore | 99 | 98 | 100 |
| Slovak Republic | 99 | 99 | 100 |
| Slovenia | 92 | 67 | 100 |
| Sweden | 94 | 86 | 100 |
| Turkey | 99 | 98 | 100 |
| United States | 97 | 89 | 100 |
| International Avg. | 93 | 79 | 99 |

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

A dash (–) indicates data are not available.

Exhibit A.10: PIRLS Cross-Country Constructed-Response Scoring Reliability

ISC

4th Grade
PIRLS 2001

| Purpose | Item Label ¹ | Total Valid Comparisons ² | Exact Percent Agreement |
|-----------------------------|-------------------------|--------------------------------------|-------------------------|
| Literary Experience | Unreleased C01 | 275496 | 99% |
| | Unreleased C02 | 275444 | 89% |
| | Unreleased C03 | 275548 | 93% |
| | Unreleased C06 | 275341 | 98% |
| | Unreleased C08 | 275496 | 92% |
| | Unreleased C10 | 275548 | 66% |
| | Unreleased C11 | 275444 | 72% |
| | Hare H03 | 275600 | 90% |
| | Hare H04 | 275393 | 93% |
| | Hare H07 | 275444 | 79% |
| | Hare H08 | 275086 | 84% |
| | Hare H09 | 275236 | 84% |
| | Hare H10 | 273661 | 73% |
| Acquire and Use Information | Unreleased A01 | 296892 | 96% |
| | Unreleased A03 | 296676 | 98% |
| | Unreleased A04 | 296676 | 90% |
| | Unreleased A07 | 296892 | 87% |
| | Unreleased A08 | 296623 | 80% |
| | Unreleased A09 | 296784 | 81% |
| | Unreleased A11 | 296191 | 80% |
| | Pufflings N07 | 274724 | 78% |
| | Pufflings N08 | 274724 | 83% |
| | Pufflings N10 | 273947 | 84% |
| | Pufflings N12 | 274673 | 76% |
| | Pufflings N13 | 274621 | 73% |
| Average Percent Agreement | | | 85% |

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

1 See Appendix C for item descriptions and scoring guides.

2 Values for items differ slightly due to a small number of missing responses.

Exhibit A.11 : Cronbach's Alpha Reliability Coefficient – PIRLS 2001**ISC****4th Grade
PIRLS 2001**

| Countries | Reliability Coefficient ¹ |
|----------------------|--------------------------------------|
| Argentina | 0.90 |
| Belize | 0.87 |
| Bulgaria | 0.89 |
| Canada (O,Q) | 0.87 |
| Colombia | 0.87 |
| Cyprus | 0.90 |
| Czech Republic | 0.85 |
| England | 0.91 |
| France | 0.87 |
| Germany | 0.87 |
| Greece | 0.88 |
| Hong Kong, SAR | 0.85 |
| Hungary | 0.87 |
| Iceland | 0.89 |
| Iran, Islamic Rep. | 0.89 |
| Israel | 0.91 |
| Italy | 0.87 |
| Kuwait | 0.86 |
| Latvia | 0.85 |
| Lithuania | 0.85 |
| Macedonia, Rep. of | 0.91 |
| Moldova, Rep. of | 0.87 |
| Morocco | 0.90 |
| Netherlands | 0.83 |
| New Zealand | 0.91 |
| Norway | 0.89 |
| Romania | 0.91 |
| Russian Federation | 0.86 |
| Scotland | 0.90 |
| Singapore | 0.91 |
| Slovak Republic | 0.88 |
| Slovenia | 0.88 |
| Sweden | 0.85 |
| Turkey | 0.89 |
| United States | 0.90 |
| International Median | 0.88 |

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

¹ The reliability coefficient for each country is the median Cronbach's alpha reliability across the ten test booklets.

for dichotomously-scored items (right or wrong), and generalized partial credit models for items with two or three available score points. The IRT scaling method produces a score by averaging the responses of each student to the items that he or she took which takes into account the difficulty and discriminating power of each item. The methodology used in PIRLS included refinements enabling reliable scores to be produced even though individual students responded to just two of the eight assessment passages. Achievement scales were produced for each of the two reading purposes (reading for literary experience and reading for information), as well as for reading overall. Exhibit A.12 presents the Pearson correlation coefficient indicating the linear relationship between the two reading purposes in each of the PIRLS countries.

The IRT methodology was preferred for developing comparable estimates of performance for all students, since students responded to different passages and items depending upon which of the test booklets they received (Booklets 1 through 9, or the PIRLS Reader). The IRT analysis provides a common scale on which performance can be compared across countries. In addition to providing a basis for estimating mean achievement, scale scores permit estimates of how students within countries vary and provide information on percentiles of performance. Treating all participating countries equally, the PIRLS scale average across countries was set to 500, and the standard deviation was set at 100. Since the countries varied in size, each country was weighted to contribute equally to the mean and standard deviation of the scale. The average and standard deviation of the scale scores are arbitrary and do not affect scale interpretation.

To allow more accurate estimation of summary statistics for student subpopulations, the PIRLS scaling made use of plausible-value technology, whereby five separate estimates of each student's score were generated on each scale – based on the student's responses to the items in the student's booklet, and on the student's background characteristics. The five score estimates are known as "plausible values," and the variability between them encapsulates the uncertainty inherent in the score estimation process.

Exhibit A.12: Correlation Between Reading for Literary Purposes and Reading for Informational Purposes

ISC

4th Grade
PIRLS 2001

| Countries | Pearson Correlation Coefficient |
|-----------------------|---------------------------------|
| Argentina | 0.81 |
| Belize | 0.85 |
| Bulgaria | 0.85 |
| Canada (O,Q) | 0.82 |
| Colombia | 0.83 |
| Cyprus | 0.87 |
| Czech Republic | 0.81 |
| England | 0.88 |
| France | 0.81 |
| Germany | 0.87 |
| Greece | 0.82 |
| Hong Kong, SAR | 0.84 |
| Hungary | 0.84 |
| Iceland | 0.81 |
| Iran, Islamic Rep. of | 0.83 |
| Israel | 0.88 |
| Italy | 0.81 |
| Kuwait | 0.80 |
| Latvia | 0.85 |
| Lithuania | 0.81 |
| Macedonia, Rep. of | 0.90 |
| Moldova, Rep. of | 0.78 |
| Morocco | 0.81 |
| Netherlands | 0.79 |
| New Zealand | 0.88 |
| Norway | 0.87 |
| Romania | 0.88 |
| Russian Federation | 0.76 |
| Scotland | 0.88 |
| Singapore | 0.94 |
| Slovak Republic | 0.85 |
| Slovenia | 0.88 |
| Sweden | 0.83 |
| Turkey | 0.83 |
| United States | 0.88 |
| International Med. | 0.84 |

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

Estimating Sampling Error

Because the statistics presented in this report are estimates of national performance based on samples of students – rather than on the values that could be calculated if every student in every country had answered every question – it is important to have measures for the degree of uncertainty of the estimates. The jackknife procedure was used to estimate the standard error associated with each statistic presented in this report.¹⁷ The jackknife standard errors also include an error component due to variation between the five plausible values generated for each student. The use of confidence intervals (based on the standard errors) provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. An estimated sample statistic plus or minus two standard errors represents a 95 percent confidence interval for the corresponding population result.

Setting International Benchmarks of Student Achievement

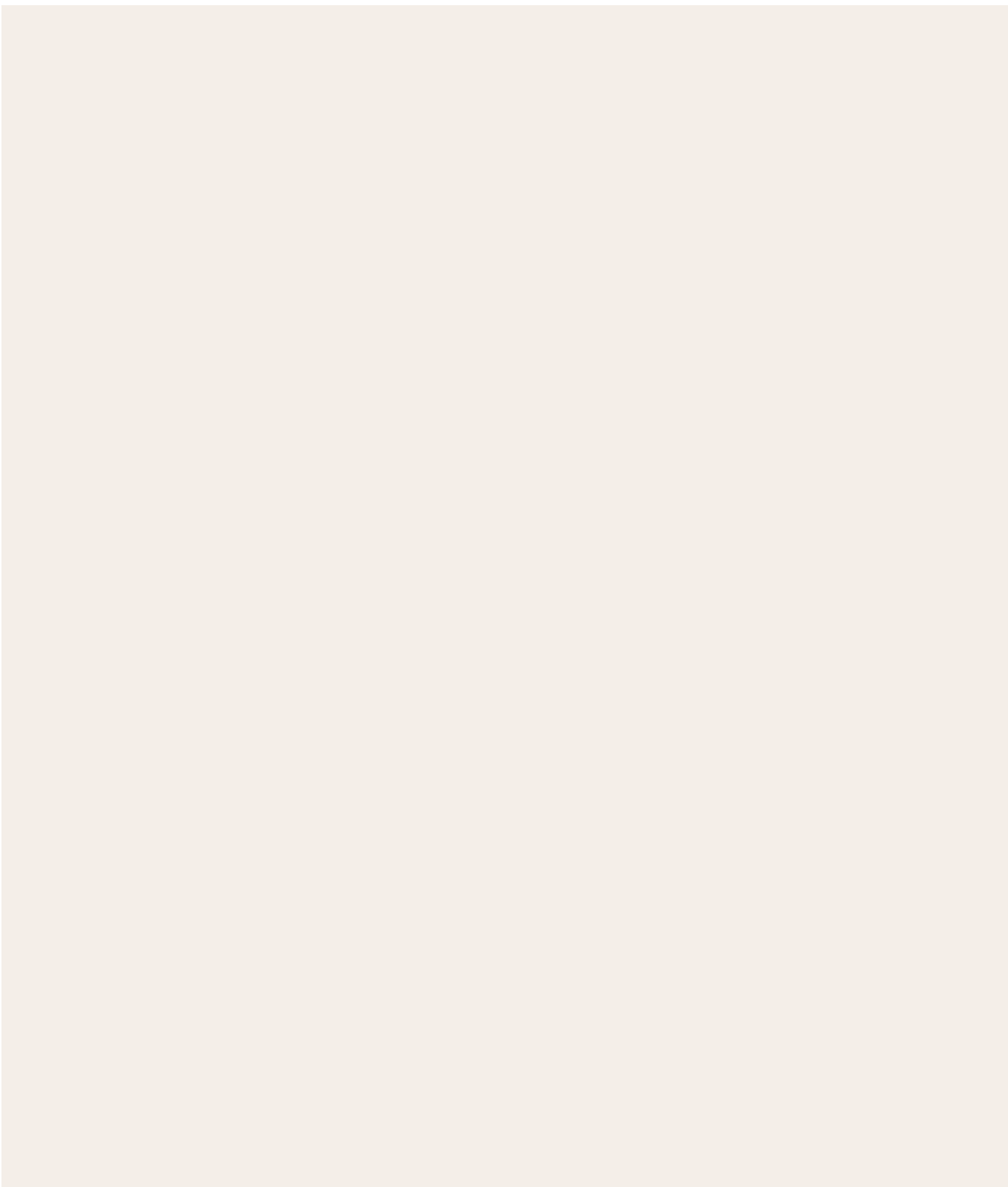
To facilitate reporting of student reading achievement at a variety of performance levels, PIRLS identified four international benchmarks of student achievement. These benchmarks are the points on the PIRLS reading scale that separate the 10 percent of students located on top of the distribution, the top 25 percent of students, the top 50 percent, and the bottom 25 percent. The percentage of students in each country meeting or exceeding the international benchmarks is reported. The benchmarks correspond to the 90th, 75th, 50th, and 25th percentiles of the international distribution of achievement. When computing these percentiles, sampling weights were applied so that each country contributed as many students to the distribution as there were students in the target population in the country. That is, each country's contribution to setting the international benchmarks was proportional to the estimated population enrolled at the fourth grade.

In order to interpret the PIRLS scale scores and analyze achievement at the international benchmarks, PIRLS conducted a scale anchoring analysis to describe achievement of students at those four points on the scale.

17 Procedures for computing jackknifed standard errors are presented in Gonzalez, E.J., & Kennedy, A.M. (2003). Statistical analysis and reporting of the PIRLS data. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College.

Scale anchoring is a way of describing students' performance at different points on a scale, in terms of the kind of reading they can do and the level of comprehension they exhibit. It involves a statistical component, in which items that discriminate between successive points on the scale are identified, and a judgmental component in which subject matter experts examine the items and generalize to students' knowledge and understandings.¹⁸ In PIRLS, the Reading Development Group (RDG) worked with the Reading Coordinator and PIRLS staff to describe student reading at the international benchmarks.

18 The scale-anchoring procedure is described fully in Gonzalez, E.J., & Kennedy, A.M. (2003). Statistical analysis and reporting of the PIRLS data. In M.O. Martin, I.V.S. Mullis, & A.M. Kennedy (Eds.), *PIRLS 2001 technical report*. Chestnut Hill, MA: Boston College. An application of the procedure to the 1995 TIMSS data may be found in Kelly, D.L., Mullis, I.V.S., & Martin, M.O. (2000). *Profiles of student achievement in mathematics at the TIMSS international benchmarks: U.S. performance and standards in an international context*. Chestnut Hill, MA: Boston College.



A large, stylized white letter 'B' is centered on a background of warm, brown-toned wood grain. The wood grain runs diagonally from the top-left to the bottom-right, with varying shades of tan and brown. The letter 'B' is a classic, slightly decorative serif font, rendered in white with a subtle drop shadow or contrast against the wood background.

B

Appendix B

Percentiles and Standard Deviations of Reading Achievement

Exhibit B.1: Percentiles of Achievement in Reading

ISC
4th Grade
PIRLS 2001

| Countries | 5th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 95th Percentile |
|-----------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Argentina | 257 (6.7) | 353 (8.7) | 424 (6.7) | 487 (6.5) | 571 (7.7) |
| Belize | 161 (3.4) | 251 (5.7) | 322 (4.8) | 401 (5.9) | 506 (5.3) |
| Bulgaria | 400 (11.9) | 502 (4.5) | 559 (3.7) | 607 (2.1) | 671 (3.8) |
| Canada (O,Q) | 419 (4.4) | 498 (2.7) | 547 (2.6) | 594 (5.1) | 658 (2.3) |
| Colombia | 287 (8.6) | 368 (5.9) | 424 (5.1) | 479 (6.4) | 551 (6.9) |
| Cyprus | 352 (4.3) | 441 (3.1) | 500 (3.2) | 551 (4.7) | 619 (5.0) |
| Czech Republic | 421 (5.2) | 496 (1.9) | 542 (2.7) | 582 (3.0) | 634 (4.7) |
| England | 395 (6.3) | 501 (4.4) | 559 (4.6) | 612 (4.5) | 685 (5.3) |
| France | 403 (5.2) | 481 (2.8) | 528 (2.1) | 573 (1.8) | 636 (4.5) |
| Germany | 419 (3.9) | 497 (3.1) | 544 (2.6) | 586 (1.9) | 640 (1.9) |
| Greece | 396 (4.0) | 477 (5.3) | 528 (4.5) | 576 (3.1) | 636 (4.1) |
| Hong Kong, SAR | 415 (6.4) | 491 (5.0) | 533 (3.9) | 571 (4.0) | 622 (3.2) |
| Hungary | 428 (4.4) | 502 (2.4) | 548 (3.8) | 589 (2.9) | 643 (3.8) |
| Iceland | 380 (3.3) | 466 (2.8) | 517 (1.9) | 564 (2.3) | 629 (5.4) |
| Iran, Islamic Rep. of | 260 (3.5) | 348 (6.0) | 416 (6.7) | 482 (4.7) | 560 (4.7) |
| Israel | 338 (7.0) | 450 (3.9) | 520 (2.8) | 575 (3.8) | 646 (4.2) |
| Italy | 415 (6.5) | 496 (3.2) | 546 (2.2) | 590 (3.1) | 649 (2.7) |
| Kuwait | 244 (7.6) | 335 (5.5) | 401 (5.0) | 461 (3.9) | 535 (5.3) |
| Latvia | 440 (4.9) | 505 (3.3) | 548 (2.7) | 586 (2.4) | 640 (3.4) |
| Lithuania | 433 (4.4) | 502 (4.0) | 547 (3.6) | 589 (2.3) | 642 (3.6) |
| Macedonia, Rep. of | 262 (8.3) | 368 (11.4) | 451 (5.5) | 520 (4.2) | 595 (2.5) |
| Moldova, Rep. of | 359 (5.0) | 445 (6.2) | 495 (5.0) | 544 (4.3) | 609 (6.4) |
| Morocco | 168 (8.7) | 266 (8.7) | 346 (11.0) | 428 (9.9) | 540 (21.2) |
| Netherlands | 458 (4.1) | 517 (3.8) | 556 (2.5) | 593 (2.9) | 645 (3.6) |
| New Zealand | 360 (4.7) | 472 (5.9) | 537 (3.6) | 593 (4.5) | 668 (5.1) |
| Norway | 351 (5.0) | 450 (4.1) | 507 (2.5) | 556 (2.8) | 620 (6.0) |
| Romania | 351 (13.4) | 456 (4.4) | 520 (3.6) | 574 (6.4) | 647 (4.4) |
| Russian Federation | 412 (12.9) | 488 (5.1) | 533 (3.4) | 574 (4.6) | 627 (4.0) |
| Scotland | 378 (5.1) | 476 (6.0) | 534 (3.4) | 586 (2.7) | 658 (6.1) |
| Singapore | 348 (10.6) | 479 (7.2) | 540 (4.6) | 592 (4.6) | 658 (5.4) |
| Slovak Republic | 389 (9.7) | 477 (2.7) | 525 (2.2) | 566 (1.8) | 623 (3.9) |
| Slovenia | 373 (6.4) | 456 (2.8) | 506 (2.5) | 551 (2.7) | 611 (3.0) |
| Sweden | 445 (4.5) | 521 (4.7) | 565 (2.4) | 605 (1.7) | 663 (2.1) |
| Turkey | 302 (3.9) | 392 (4.0) | 452 (3.8) | 510 (4.1) | 586 (6.0) |
| United States | 389 (8.9) | 492 (4.7) | 551 (2.8) | 601 (4.2) | 663 (2.8) |

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

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

Exhibit B.2: Standard Deviations of Achievement in Reading

ISC
4th Grade
PIRLS 2001

| Countries | Overall | | Girls | | Boys | |
|-----------------------|-----------|--------------------|-----------|--------------------|------------|--------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation |
| Argentina | 420 (5.9) | 96 (2.8) | 428 (6.2) | 96 (3.6) | 410 (6.5) | 94 (2.9) |
| Belize | 327 (4.7) | 106 (2.4) | 341 (5.3) | 105 (3.1) | 314 (5.2) | 104 (2.6) |
| Bulgaria | 550 (3.8) | 83 (2.8) | 562 (3.7) | 79 (2.5) | 538 (4.7) | 85 (3.4) |
| Canada (O,Q) | 544 (2.4) | 72 (1.0) | 553 (2.6) | 71 (1.4) | 536 (2.6) | 72 (1.3) |
| Colombia | 422 (4.4) | 81 (3.0) | 428 (5.1) | 82 (3.5) | 416 (4.7) | 79 (3.2) |
| Cyprus | 494 (3.0) | 81 (1.4) | 506 (3.3) | 79 (1.9) | 482 (3.6) | 82 (2.0) |
| Czech Republic | 537 (2.3) | 65 (1.4) | 543 (2.8) | 62 (1.8) | 531 (2.6) | 66 (1.8) |
| England | 553 (3.4) | 87 (1.7) | 564 (3.9) | 84 (2.4) | 541 (3.7) | 88 (2.2) |
| France | 525 (2.4) | 70 (1.6) | 531 (2.7) | 69 (1.6) | 520 (3.0) | 71 (2.2) |
| Germany | 539 (1.9) | 67 (1.0) | 545 (2.2) | 67 (1.0) | 533 (2.5) | 67 (1.5) |
| Greece | 524 (3.5) | 73 (1.6) | 535 (3.8) | 69 (1.9) | 514 (4.0) | 76 (1.9) |
| Hong Kong, SAR | 528 (3.1) | 63 (1.7) | 538 (3.0) | 59 (1.8) | 519 (3.5) | 65 (1.9) |
| Hungary | 543 (2.2) | 66 (1.2) | 550 (2.4) | 64 (1.3) | 536 (2.5) | 67 (1.5) |
| Iceland | 512 (1.2) | 75 (1.1) | 522 (1.9) | 72 (1.3) | 503 (1.5) | 76 (1.7) |
| Iran, Islamic Rep. of | 414 (4.2) | 92 (1.8) | 426 (5.7) | 91 (2.2) | 399 (5.6) | 92 (2.2) |
| Israel | 509 (2.8) | 94 (2.1) | 520 (3.4) | 90 (2.2) | 498 (3.7) | 96 (2.6) |
| Italy | 541 (2.4) | 71 (1.4) | 545 (2.6) | 71 (1.8) | 537 (2.7) | 71 (1.7) |
| Kuwait | 396 (4.3) | 89 (2.1) | 422 (5.6) | 81 (2.4) | 373 (6.3) | 90 (2.2) |
| Latvia | 545 (2.3) | 62 (1.3) | 556 (3.1) | 61 (1.9) | 534 (2.6) | 60 (1.7) |
| Lithuania | 543 (2.6) | 64 (1.3) | 552 (3.0) | 63 (1.8) | 535 (2.7) | 64 (1.8) |
| Macedonia, Rep. of | 442 (4.6) | 103 (2.3) | 452 (5.1) | 103 (2.7) | 431 (4.8) | 102 (2.5) |
| Moldova, Rep. of | 492 (4.0) | 75 (2.3) | 504 (4.7) | 71 (2.5) | 479 (4.0) | 77 (2.6) |
| Morocco | 350 (9.6) | 115 (6.9) | 361 (9.6) | 115 (8.1) | 341 (10.9) | 115 (6.4) |
| Netherlands | 554 (2.5) | 57 (1.2) | 562 (2.7) | 56 (1.4) | 547 (2.8) | 58 (1.5) |
| New Zealand | 529 (3.6) | 93 (1.9) | 542 (4.7) | 90 (2.4) | 516 (4.2) | 95 (2.6) |
| Norway | 499 (2.9) | 81 (1.6) | 510 (3.5) | 77 (2.5) | 489 (3.4) | 83 (2.0) |
| Romania | 512 (4.6) | 90 (2.7) | 519 (4.2) | 87 (2.4) | 504 (5.7) | 92 (3.4) |
| Russian Federation | 528 (4.4) | 66 (4.2) | 534 (4.3) | 65 (4.1) | 522 (4.8) | 67 (4.5) |
| Scotland | 528 (3.6) | 84 (1.8) | 537 (3.9) | 83 (2.2) | 519 (4.2) | 84 (2.4) |
| Singapore | 528 (5.2) | 92 (3.7) | 540 (5.3) | 88 (3.5) | 516 (5.7) | 94 (4.0) |
| Slovak Republic | 518 (2.8) | 70 (1.7) | 526 (3.0) | 68 (1.8) | 510 (3.3) | 72 (2.0) |
| Slovenia | 502 (2.0) | 72 (1.5) | 512 (2.5) | 69 (2.0) | 491 (2.4) | 73 (2.0) |
| Sweden | 561 (2.2) | 66 (1.2) | 572 (2.6) | 63 (1.6) | 550 (2.5) | 67 (1.3) |
| Turkey | 449 (3.5) | 86 (1.6) | 459 (4.0) | 84 (1.9) | 440 (3.7) | 87 (1.8) |
| United States | 542 (3.8) | 83 (2.0) | 551 (3.8) | 79 (2.4) | 533 (4.9) | 86 (2.4) |

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

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

Exhibit B.3: Percentiles of Achievement in Literary Reading

ISC
4th Grade
PIRLS 2001

| Countries | 5th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 95th Percentile |
|-----------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Argentina | 255 (5.9) | 352 (8.5) | 422 (7.7) | 488 (6.9) | 576 (8.6) |
| Belize | 168 (7.3) | 255 (6.2) | 324 (5.1) | 401 (5.8) | 508 (12.9) |
| Bulgaria | 394 (8.3) | 497 (5.1) | 557 (5.0) | 609 (4.2) | 678 (5.2) |
| Canada (O,Q) | 415 (4.0) | 496 (2.9) | 547 (3.1) | 595 (2.8) | 664 (4.2) |
| Colombia | 296 (6.6) | 371 (5.7) | 426 (5.1) | 480 (5.9) | 553 (6.0) |
| Cyprus | 359 (5.8) | 446 (2.2) | 503 (2.6) | 555 (3.4) | 622 (4.2) |
| Czech Republic | 423 (8.9) | 496 (2.2) | 539 (2.9) | 579 (3.2) | 632 (3.8) |
| England | 391 (9.9) | 502 (5.3) | 565 (3.7) | 623 (3.5) | 705 (5.1) |
| France | 396 (7.8) | 473 (5.4) | 521 (2.2) | 566 (2.7) | 631 (3.2) |
| Germany | 418 (3.4) | 494 (3.4) | 541 (2.2) | 583 (2.1) | 637 (2.0) |
| Greece | 397 (5.8) | 481 (5.2) | 531 (4.5) | 579 (4.3) | 643 (7.4) |
| Hong Kong, SAR | 401 (7.0) | 477 (4.3) | 521 (3.5) | 563 (2.4) | 618 (4.2) |
| Hungary | 436 (3.6) | 508 (3.3) | 552 (3.7) | 594 (2.9) | 649 (3.4) |
| Iceland | 399 (2.4) | 477 (2.4) | 524 (2.1) | 568 (1.3) | 627 (4.7) |
| Iran, Islamic Rep. of | 268 (6.1) | 358 (6.9) | 423 (5.5) | 488 (6.1) | 564 (5.4) |
| Israel | 336 (8.1) | 452 (5.4) | 521 (3.3) | 577 (3.2) | 648 (7.3) |
| Italy | 407 (8.1) | 495 (3.3) | 547 (2.1) | 597 (4.3) | 660 (3.0) |
| Kuwait | 250 (6.2) | 335 (4.4) | 397 (4.4) | 455 (4.2) | 528 (5.9) |
| Latvia | 436 (7.3) | 499 (3.0) | 539 (2.6) | 578 (3.7) | 631 (4.0) |
| Lithuania | 428 (7.8) | 502 (5.5) | 550 (3.0) | 592 (2.3) | 650 (3.9) |
| Macedonia, Rep. of | 271 (7.8) | 372 (6.8) | 449 (5.8) | 515 (3.0) | 588 (2.9) |
| Moldova, Rep. of | 357 (5.9) | 433 (3.3) | 482 (3.5) | 529 (5.1) | 593 (5.8) |
| Morocco | 181 (6.1) | 271 (8.4) | 345 (7.4) | 419 (10.1) | 524 (16.6) |
| Netherlands | 453 (6.7) | 516 (2.9) | 553 (2.4) | 592 (2.5) | 645 (3.0) |
| New Zealand | 357 (12.6) | 471 (6.4) | 540 (5.0) | 598 (4.4) | 676 (4.4) |
| Norway | 350 (6.9) | 455 (4.8) | 513 (3.4) | 565 (2.7) | 631 (3.5) |
| Romania | 355 (6.8) | 456 (6.6) | 517 (6.0) | 574 (5.5) | 649 (10.0) |
| Russian Federation | 408 (8.3) | 481 (4.4) | 528 (3.2) | 570 (2.7) | 626 (3.5) |
| Scotland | 373 (12.5) | 474 (4.2) | 533 (3.1) | 589 (3.8) | 668 (5.9) |
| Singapore | 340 (14.7) | 474 (6.8) | 540 (5.1) | 596 (5.2) | 668 (4.9) |
| Slovak Republic | 387 (7.7) | 472 (2.9) | 518 (3.5) | 559 (2.4) | 613 (4.3) |
| Slovenia | 379 (3.2) | 457 (4.1) | 504 (2.1) | 546 (1.5) | 603 (5.0) |
| Sweden | 445 (9.3) | 520 (2.6) | 564 (2.7) | 603 (1.9) | 659 (4.0) |
| Turkey | 300 (5.8) | 391 (5.1) | 452 (4.4) | 509 (3.8) | 583 (4.0) |
| United States | 391 (6.8) | 496 (5.1) | 557 (6.0) | 613 (3.0) | 681 (3.5) |

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

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

Exhibit B.4: Standard Deviations of Achievement in Literary Reading

ISC

4th Grade
PIRLS 2001

| Countries | Overall | | Girls | | Boys | |
|-----------------------|-----------|--------------------|-----------|--------------------|-----------|--------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation |
| Argentina | 419 (5.8) | 97 (2.9) | 429 (6.2) | 97 (3.2) | 408 (6.2) | 97 (3.1) |
| Belize | 330 (4.9) | 103 (3.0) | 340 (5.3) | 103 (3.8) | 320 (5.6) | 101 (2.8) |
| Bulgaria | 550 (3.9) | 86 (2.8) | 563 (4.2) | 83 (2.6) | 535 (5.1) | 88 (3.5) |
| Canada (O,Q) | 545 (2.6) | 75 (1.2) | 554 (3.0) | 74 (1.5) | 535 (2.7) | 74 (1.5) |
| Colombia | 425 (4.2) | 79 (2.8) | 431 (4.9) | 81 (3.2) | 419 (4.8) | 76 (3.0) |
| Cyprus | 498 (2.5) | 80 (1.1) | 512 (2.9) | 78 (2.1) | 485 (3.3) | 79 (1.7) |
| Czech Republic | 535 (2.3) | 63 (1.2) | 543 (2.7) | 61 (1.6) | 528 (2.7) | 65 (1.7) |
| England | 559 (3.9) | 94 (1.8) | 574 (4.9) | 91 (2.3) | 544 (4.0) | 94 (2.1) |
| France | 518 (2.6) | 71 (1.7) | 524 (2.9) | 69 (2.2) | 513 (3.2) | 73 (2.2) |
| Germany | 537 (1.9) | 66 (1.1) | 544 (2.1) | 66 (1.2) | 529 (2.4) | 66 (1.5) |
| Greece | 528 (3.3) | 74 (1.2) | 539 (3.8) | 70 (1.8) | 516 (3.7) | 76 (1.9) |
| Hong Kong, SAR | 518 (3.1) | 66 (1.8) | 528 (3.4) | 63 (1.9) | 507 (3.4) | 67 (2.1) |
| Hungary | 548 (2.0) | 65 (1.1) | 558 (2.1) | 62 (1.1) | 538 (2.6) | 66 (1.6) |
| Iceland | 520 (1.3) | 69 (0.9) | 531 (1.9) | 65 (1.4) | 509 (1.7) | 71 (1.3) |
| Iran, Islamic Rep. of | 421 (4.5) | 91 (2.0) | 433 (5.7) | 89 (2.0) | 406 (6.4) | 90 (2.6) |
| Israel | 510 (2.6) | 95 (2.0) | 521 (3.3) | 92 (2.0) | 498 (3.2) | 96 (2.7) |
| Italy | 543 (2.7) | 76 (1.3) | 549 (2.7) | 76 (1.7) | 538 (3.3) | 75 (1.6) |
| Kuwait | 394 (3.8) | 85 (1.8) | 416 (5.2) | 79 (1.9) | 373 (5.4) | 85 (2.1) |
| Latvia | 537 (2.2) | 59 (1.4) | 548 (2.8) | 58 (1.8) | 527 (2.2) | 58 (1.6) |
| Lithuania | 546 (3.1) | 68 (1.6) | 554 (3.4) | 66 (1.8) | 536 (3.7) | 69 (2.2) |
| Macedonia, Rep. of | 441 (4.5) | 97 (2.2) | 453 (4.6) | 96 (2.8) | 430 (4.9) | 97 (2.6) |
| Moldova, Rep. of | 480 (3.7) | 72 (2.0) | 492 (4.3) | 68 (2.4) | 468 (3.6) | 73 (2.3) |
| Morocco | 347 (8.4) | 106 (5.2) | 358 (8.5) | 105 (5.6) | 340 (9.1) | 105 (5.5) |
| Netherlands | 552 (2.5) | 58 (1.4) | 561 (2.8) | 57 (1.4) | 544 (3.2) | 58 (1.6) |
| New Zealand | 531 (3.9) | 96 (2.3) | 546 (4.7) | 92 (3.1) | 517 (4.6) | 98 (2.7) |
| Norway | 506 (2.7) | 84 (1.4) | 519 (3.4) | 80 (2.0) | 494 (3.1) | 86 (1.9) |
| Romania | 512 (4.7) | 88 (2.3) | 518 (4.2) | 86 (2.2) | 505 (6.1) | 91 (3.1) |
| Russian Federation | 523 (3.9) | 68 (3.4) | 531 (3.9) | 66 (3.2) | 517 (4.3) | 68 (3.8) |
| Scotland | 529 (3.5) | 88 (2.1) | 538 (4.0) | 88 (2.5) | 519 (4.1) | 87 (2.5) |
| Singapore | 528 (5.6) | 98 (4.1) | 541 (5.7) | 93 (4.1) | 516 (6.0) | 100 (4.4) |
| Slovak Republic | 512 (2.6) | 68 (1.7) | 519 (2.9) | 67 (2.1) | 505 (2.9) | 69 (2.0) |
| Slovenia | 499 (1.8) | 68 (1.3) | 509 (2.4) | 66 (2.0) | 490 (2.4) | 69 (1.7) |
| Sweden | 559 (2.4) | 64 (1.4) | 572 (2.9) | 61 (1.8) | 547 (2.6) | 65 (1.6) |
| Turkey | 448 (3.4) | 86 (1.8) | 460 (3.8) | 84 (2.3) | 437 (3.6) | 88 (1.8) |
| United States | 550 (3.8) | 88 (1.8) | 558 (4.2) | 85 (2.2) | 542 (4.6) | 91 (1.9) |

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

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

Exhibit B.5: Percentiles of Achievement in Informational Reading

ISC
4th Grade
PIRLS 2001

| Countries | 5th Percentile | 25th Percentile | 50th Percentile | 75th Percentile | 95th Percentile |
|-----------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Argentina | 257 (6.8) | 355 (7.3) | 427 (7.3) | 492 (6.6) | 579 (8.4) |
| Belize | 159 (6.4) | 254 (5.8) | 328 (6.2) | 409 (4.9) | 516 (15.3) |
| Bulgaria | 404 (13.3) | 504 (3.9) | 558 (2.5) | 606 (4.1) | 672 (6.0) |
| Canada (O,Q) | 418 (5.4) | 496 (3.6) | 544 (2.9) | 590 (3.1) | 655 (4.4) |
| Colombia | 283 (9.1) | 367 (6.3) | 426 (5.5) | 482 (5.8) | 557 (5.5) |
| Cyprus | 345 (4.7) | 437 (3.5) | 496 (4.2) | 548 (3.3) | 617 (4.6) |
| Czech Republic | 415 (4.8) | 494 (3.2) | 542 (3.2) | 584 (3.1) | 640 (5.8) |
| England | 399 (8.6) | 494 (5.1) | 551 (3.4) | 602 (4.7) | 672 (8.0) |
| France | 411 (4.1) | 487 (3.4) | 537 (2.7) | 582 (2.5) | 645 (4.7) |
| Germany | 417 (3.3) | 494 (2.7) | 542 (2.2) | 586 (2.9) | 643 (2.8) |
| Greece | 391 (11.6) | 472 (6.3) | 526 (5.1) | 574 (4.0) | 636 (3.6) |
| Hong Kong, SAR | 431 (7.9) | 502 (3.3) | 541 (2.8) | 577 (2.2) | 626 (4.2) |
| Hungary | 419 (3.0) | 494 (2.8) | 541 (2.4) | 584 (2.7) | 641 (2.6) |
| Iceland | 357 (5.0) | 449 (2.9) | 509 (1.1) | 562 (2.1) | 637 (4.4) |
| Iran, Islamic Rep. of | 245 (5.2) | 341 (6.1) | 410 (5.3) | 479 (4.8) | 563 (6.2) |
| Israel | 336 (6.6) | 450 (5.0) | 517 (3.1) | 572 (5.1) | 642 (3.1) |
| Italy | 417 (5.5) | 493 (2.6) | 540 (2.2) | 583 (2.8) | 643 (6.1) |
| Kuwait | 237 (9.2) | 336 (5.4) | 409 (4.5) | 473 (5.0) | 554 (4.4) |
| Latvia | 436 (5.2) | 505 (3.1) | 550 (2.1) | 591 (2.9) | 648 (4.9) |
| Lithuania | 430 (5.5) | 498 (3.1) | 544 (2.6) | 584 (2.5) | 636 (3.0) |
| Macedonia, Rep. of | 260 (8.7) | 367 (8.4) | 456 (6.3) | 527 (5.6) | 607 (4.8) |
| Moldova, Rep. of | 365 (6.0) | 453 (4.7) | 509 (6.1) | 561 (5.0) | 632 (6.9) |
| Morocco | 165 (7.1) | 268 (12.3) | 351 (12.3) | 443 (15.9) | 571 (23.7) |
| Netherlands | 455 (5.0) | 516 (2.7) | 555 (3.1) | 591 (1.9) | 645 (3.9) |
| New Zealand | 366 (9.7) | 468 (7.0) | 531 (3.7) | 587 (2.1) | 660 (7.1) |
| Norway | 347 (7.8) | 441 (2.6) | 499 (2.4) | 549 (2.3) | 615 (6.1) |
| Romania | 351 (7.4) | 459 (5.0) | 520 (6.0) | 574 (6.3) | 647 (7.8) |
| Russian Federation | 417 (10.1) | 490 (6.1) | 536 (4.7) | 577 (4.5) | 635 (5.2) |
| Scotland | 381 (9.1) | 476 (4.3) | 533 (4.0) | 584 (3.2) | 654 (6.3) |
| Singapore | 366 (15.7) | 484 (5.8) | 538 (5.2) | 584 (4.4) | 645 (5.3) |
| Slovak Republic | 394 (5.3) | 480 (4.2) | 528 (3.2) | 571 (3.0) | 629 (3.5) |
| Slovenia | 370 (3.9) | 456 (4.3) | 508 (1.4) | 555 (4.0) | 619 (3.3) |
| Sweden | 439 (4.4) | 517 (2.9) | 561 (2.4) | 605 (2.8) | 665 (3.4) |
| Turkey | 299 (6.0) | 391 (3.0) | 455 (4.9) | 515 (5.0) | 595 (5.8) |
| United States | 392 (8.1) | 486 (4.2) | 541 (4.6) | 588 (3.7) | 650 (2.9) |

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

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

Exhibit B.6: Standard Deviations of Achievement in Informational Reading

ISC

4th Grade
PIRLS 2001

| Countries | Overall | | Girls | | Boys | |
|-----------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| | Mean | Standard Deviation | Mean | Standard Deviation | Mean | Standard Deviation |
| Argentina | 422 (5.4) | 99 (2.7) | 429 (6.0) | 99 (3.2) | 415 (5.9) | 97 (2.9) |
| Belize | 332 (4.9) | 109 (2.5) | 349 (5.1) | 108 (3.2) | 316 (5.9) | 107 (2.5) |
| Bulgaria | 551 (3.6) | 81 (2.9) | 561 (3.4) | 78 (2.7) | 541 (4.2) | 82 (3.5) |
| Canada (O,Q) | 541 (2.4) | 71 (1.1) | 549 (3.0) | 70 (1.3) | 534 (2.6) | 71 (1.5) |
| Colombia | 424 (4.3) | 83 (3.0) | 430 (5.2) | 84 (3.0) | 417 (4.9) | 82 (3.7) |
| Cyprus | 490 (3.0) | 83 (1.8) | 500 (3.1) | 80 (2.4) | 480 (3.5) | 84 (2.1) |
| Czech Republic | 536 (2.7) | 68 (1.5) | 541 (3.3) | 67 (2.0) | 532 (3.1) | 69 (1.6) |
| England | 546 (3.6) | 82 (2.3) | 554 (4.0) | 81 (2.3) | 537 (4.0) | 83 (3.0) |
| France | 533 (2.5) | 71 (1.6) | 540 (2.9) | 69 (1.9) | 527 (3.1) | 71 (2.0) |
| Germany | 538 (1.9) | 68 (1.0) | 543 (2.5) | 68 (1.1) | 533 (2.1) | 68 (1.3) |
| Greece | 521 (3.7) | 75 (1.5) | 529 (3.9) | 71 (1.6) | 513 (4.4) | 78 (2.3) |
| Hong Kong, SAR | 537 (2.9) | 59 (1.8) | 546 (2.8) | 56 (1.5) | 529 (3.6) | 61 (2.0) |
| Hungary | 537 (2.2) | 68 (1.1) | 542 (2.5) | 66 (1.4) | 532 (2.8) | 69 (1.7) |
| Iceland | 504 (1.5) | 84 (1.5) | 512 (1.9) | 82 (2.0) | 496 (2.0) | 86 (1.5) |
| Iran, Islamic Rep. of | 408 (4.6) | 97 (1.7) | 419 (6.4) | 96 (2.2) | 395 (6.1) | 97 (2.2) |
| Israel | 507 (2.9) | 93 (2.1) | 518 (3.5) | 88 (2.1) | 495 (3.6) | 95 (2.7) |
| Italy | 536 (2.4) | 69 (1.3) | 539 (2.7) | 68 (1.7) | 533 (2.6) | 69 (1.8) |
| Kuwait | 403 (4.5) | 97 (2.4) | 430 (6.1) | 89 (2.7) | 378 (6.7) | 98 (2.5) |
| Latvia | 547 (2.3) | 64 (1.5) | 558 (2.8) | 62 (1.8) | 537 (2.6) | 64 (2.1) |
| Lithuania | 540 (2.7) | 64 (1.4) | 548 (2.9) | 62 (2.0) | 532 (2.9) | 64 (1.8) |
| Macedonia, Rep. of | 445 (5.2) | 108 (2.4) | 454 (5.6) | 108 (2.6) | 437 (5.8) | 107 (3.4) |
| Moldova, Rep. of | 505 (4.7) | 81 (2.2) | 516 (5.5) | 77 (2.8) | 494 (4.7) | 83 (2.5) |
| Morocco | 358 (10.9) | 125 (7.2) | 370 (10.8) | 124 (7.7) | 349 (11.9) | 125 (7.4) |
| Netherlands | 553 (2.6) | 58 (1.5) | 559 (2.9) | 58 (1.5) | 547 (2.9) | 58 (1.8) |
| New Zealand | 525 (3.8) | 89 (1.8) | 536 (4.5) | 85 (2.5) | 514 (4.4) | 91 (2.2) |
| Norway | 492 (2.8) | 81 (1.3) | 499 (3.7) | 79 (1.8) | 486 (3.1) | 83 (1.9) |
| Romania | 512 (4.6) | 90 (2.5) | 519 (4.6) | 87 (3.0) | 506 (5.6) | 93 (3.0) |
| Russian Federation | 531 (4.3) | 68 (3.5) | 536 (4.5) | 67 (3.3) | 527 (4.6) | 67 (3.9) |
| Scotland | 527 (3.6) | 82 (1.8) | 534 (4.3) | 81 (2.0) | 520 (4.1) | 83 (2.7) |
| Singapore | 527 (4.8) | 83 (3.4) | 538 (4.9) | 79 (3.4) | 517 (5.3) | 85 (3.7) |
| Slovak Republic | 522 (2.7) | 71 (1.6) | 530 (2.8) | 69 (1.9) | 514 (3.4) | 72 (1.9) |
| Slovenia | 503 (1.9) | 75 (1.4) | 514 (2.6) | 72 (1.8) | 492 (2.5) | 76 (1.9) |
| Sweden | 559 (2.2) | 68 (1.3) | 568 (2.8) | 66 (1.6) | 550 (2.6) | 69 (1.6) |
| Turkey | 452 (3.8) | 90 (1.8) | 460 (4.6) | 88 (2.6) | 444 (4.2) | 91 (1.8) |
| United States | 533 (3.7) | 79 (1.9) | 541 (4.1) | 75 (2.3) | 525 (4.3) | 82 (2.2) |

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

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

A large, stylized white letter 'C' is centered on a background of blurred, warm-toned wooden planks. The planks run diagonally from the top-left to the bottom-right, creating a sense of depth and texture. The lighting is soft and even, highlighting the natural grain of the wood. The letter 'C' is a simple, clean design with a slight shadow, making it stand out against the textured background.

C

Appendix C

Sample Passages, Questions, and Scoring Guides

Reading for Literary Experience

The Upside-Down Mice

Hare Heralds an Earthquake

Reading to Acquire and Use Information

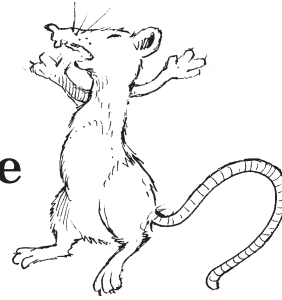
Nights of the Pufflings

River Trail



The Upside-Down Mice

by Roald Dahl



Once upon a time there lived an old man of 87 whose name was Labon. All his life he had been a quiet and peaceful person. He was very poor and very happy.

When Labon discovered that he had mice in his house, it did not bother him much at first. But the mice multiplied. They began to bother him. They kept on multiplying and finally there came a time when even he could stand it no longer.

"This is too much," he said. "This really is going a bit too far." He hobbled out of the house down the road to a shop where he bought some mousetraps, a piece of cheese and some glue.

When he got home, he put the glue on the underneath of the mousetraps and stuck them to the ceiling. Then he baited them carefully with pieces of cheese and set them to go off.

That night when the mice came out of their holes and saw the mousetraps on the ceiling, they thought it was a tremendous joke. They walked around on the floor, nudging each other and pointing up with their front paws and roaring with laughter. After all, it was pretty silly, mousetraps on the ceiling.

When Labon came down the next morning and saw that there were no mice caught in the traps, he smiled but said nothing.

He took a chair and put glue on the bottom of its legs and stuck it upside-down to the ceiling, near the mousetraps. He did the same with the table, the television set and the lamp. He took everything that was on the floor and stuck it upside-down on the ceiling. He even put a little carpet up there.



The next night when the mice came out of their holes they were still joking and laughing about what they had seen the night before. But now, when they looked up at the ceiling, they stopped laughing very suddenly.

“Good gracious me!” cried one. “Look up there! There’s the floor!”

“Heavens above!” shouted another. “We must be standing on the ceiling!”

“I’m beginning to feel a little giddy,” said another.

“All the blood’s going to my head,” said another.

“This is terrible!” said a very senior mouse with long whiskers. “This is really terrible! We must do something about it at once!”

“I shall faint if I have to stand on my head any longer!” shouted a young mouse.

“Me too!”

“I can’t stand it!”

“Save us! Do something somebody, quick!”

They were getting hysterical now. “I know what we’ll do,” said the very senior mouse. “We’ll all stand on our heads, then we’ll be the right way up.”

Obediently, they all stood on their heads, and after a long time, one by one they fainted from a rush of blood to their brains.

When Labon came down the next morning the floor was littered with mice. Quickly he gathered them up and popped them all in a basket.

So the thing to remember is this: whenever the world seems to be terribly upside-down, make sure you keep your feet firmly on the ground.



Questions The Upside-Down Mice

1. Why did Labon want to get rid of the mice?
- ☐ A He had always hated mice.
 - * ☐ B There were too many of them.
 - ☐ C They laughed too loudly.
 - ☐ D They ate all his cheese.
2. Where did Labon put the mousetraps?
- ☐ A in a basket
 - ☐ B near the mouse holes
 - ☐ C under the chairs
 - * ☐ D on the ceiling
3. Why were the mice nudging each other and pointing up with their paws when they came out of their holes on the first night?
- ☐ A They could see a chair on the ceiling.
 - * ☐ B They thought Labon had done something silly.
 - ☐ C They wanted the cheese in the mousetraps.
 - ☐ D They were afraid of what they saw.

* correct answer

4. Why did Labon smile when he saw there were no mice in the traps?



5. What did Labon do after he stuck the chair to the ceiling?

- ☐ A smiled and said nothing
- ☐ B bought some mousetraps
- * ☒ C stuck everything to the ceiling
- ☐ D gave the mice some cheese

6. On the second night, where did the mice think they were standing and what did they decide to do about it?

Where the mice thought they were standing:



* correct answer

7. Find and copy **one** of the sentences that show the panic the mice felt on the second night.



8. How does the story show you what the mice thought was happening?

- ☐ A by telling you what Labon thought of the mice
- ☐ B by describing where the mice lived
- * ☐ C by telling you what the mice said to one another
- ☐ D by describing what the mice were like

9. Why was the floor covered with mice when Labon came down on the last morning?

- * ☐ A The mice had stood on their heads for too long.
- ☐ B Labon had given the mice too much cheese.
- ☐ C The mice had fallen from the ceiling.
- ☐ D Labon had put glue on the floor.

* correct answer

10. Where did Labon put the mice when he picked them up from the floor?



11. Do you think the mice were easy to fool? Give **one** reason why or why not.



12. You learn what Labon is like from the things he does. Describe what he is like and give **two** examples of what he does that show this.



13. Which words best describe this story?

- ☐ A serious and sad
- ☐ B scary and exciting
- * ☒ C funny and clever
- ☐ D thrilling and mysterious

14. Think about what Labon and the mice did in the story. Explain what makes the story unbelievable.





Stop

End of this part of the booklet.
Please stop working.

* correct answer

Mice, Item 4

Why did Labon smile when he saw there were no mice in the traps?

Process: Interpret and Integrate Ideas and Information

1 – Acceptable Response

These responses provide an appropriate interpretation of Labon's reaction within the context of the whole story.

Evidence:

The response demonstrates understanding that Labon was not surprised by the empty traps. It may describe Labon's intent to carry out a more elaborate plan for catching the mice.

Example:

» He had a plan to fool the mice and get rid of them.

Or, it may demonstrate understanding that he had intended only to fool the mice, not to catch them, on the first night.

Example:

» He knew that they would not go for the cheese the first night.

Mice, Item 6

On the second night, where did the mice think they were standing? What did they decide to do about it?

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses connect information from different parts of the text to demonstrate a complete comprehension of how the mice reacted.

Evidence:

The response includes evidence of understanding **both** elements required by the question:

1. the mice thought they were standing on the ceiling; and
2. the mice decided to stand on their heads.

Example:

» They thought they were on the ceiling because everything was upside down so they stood on their heads.

1 – Partial Comprehension

These responses demonstrate partial comprehension of how the mice reacted.

Evidence:

The response includes evidence of understanding **only one** of the elements required by the question:

1. the mice thought they were standing on the ceiling; or
2. the mice decided to stand on their heads.

Example:

» They decided to stand on their heads.

Mice, Item 7

Find and copy one of the sentences that show the panic the mice felt on the second night.

Process: Make Straightforward Inference

1 – Acceptable Response

These responses provide an appropriate sentence from the story from which the panic the mice felt can be inferred.

Evidence:

The response includes at least one of the appropriate sentences from the story listed below. Minor copying errors may be evident but do not alter the meaning of the sentence.

Appropriate Sentences from the Story From Which the Mice's Panic Can be Inferred

I shall faint if I have to stand on my head any longer.

I can't stand it!

Save us!

Do something somebody, quick.

They were getting hysterical now.

This is terrible!

This is really terrible!

Good gracious me!

Look up there!

There's the floor!

Heaven's above!

We must be standing on the ceiling!

I'm beginning to feel a little giddy.

All the blood's going to my head.

We must do something about it at once.

They stopped laughing very suddenly.

Mice, Item 10

Where did Labon put the mice when he picked them up from the floor?

Process: Focus on and Retrieve Explicitly Stated Information and Ideas

1 – Acceptable Response

These responses accurately identify the action taken by Labon that was explicitly stated in the text.

Evidence: The response states that Labon put the mice in a basket.

Mice, Item 11

Do you think the mice were easy to fool? Give one reason why or why not.

Process: Interpret and Integrate Ideas and Information

1 – Acceptable Response

These responses demonstrate a plausible interpretation of the mice's character by providing appropriate text-based support for the interpretation.

Evidence:

The response provides a "yes," "no," or neutral position on whether or not the mice were easy to fool.

In addition, the response provides a text-based reason for the position. The reason either includes appropriate information from the text that demonstrates how easy it was or wasn't for Labon to fool the mice, or it includes an appropriate interpretation of text information.

Example:

» Yes, because they thought they were standing on the ceiling.

Mice, Item 12

You learn what Labon is like from the things he does. Describe what he is like and give two examples of what he does that show this.

Process: Interpret and Integrate Ideas and Information

3 – Extensive Comprehension

These responses demonstrate extensive comprehension by integrating text ideas and providing an interpretation of Labon's character.

Evidence:

The response describes **one or more** plausible character traits. In addition, the response provides at least **two** examples of Labon's actions that are evidence of the character trait or traits.

Example:

- » He's clever because he let the mice stay until there were too many and then he found a way to confuse the mice. He didn't give the mice the horrible death possible. That means he thinks of others.

2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension by providing an interpretation of Labon's character with appropriate textual support.

Evidence:

The response describes **one** plausible character trait. In addition, the response provides **one** example of Labon's actions as evidence of the character trait.

Example:

- » Labon is unusual because he thought of a clever way of catching the mice.

Mice, Item 12 (Continued)

1 – Minimal Comprehension

These responses demonstrate limited comprehension of Labon's character.

Evidence:

The response describes **one** plausible character trait inferred from the events of the story, but does not provide an example of Labon's actions as evidence of the character trait.

Example:

- » Labon is clever.

Or, the response describes one character trait stated in the text, but does not provide an example of Labon's actions as evidence of the character trait: happy, peaceful, quiet. Note that "poor" is not acceptable.

- » All his life he was a quiet and peaceful person.

Or, the response provides a plausible attitude or desire of Labon's, inferred from his actions, without naming a specific character trait.

- » He likes to fool mice in a really weird way.

Mice, Item 14

Think about what Labon and the mice did in the story. Explain what makes the story unbelievable.

Process: Examine and Evaluate Content, Language, and Textual Elements

1 – Acceptable Response

These responses accurately evaluates the believability of the story's events or characters.

Evidence: The response describes one or more aspects of the story's events or characters listed below.

Unbelievable Elements of the Story

Story Events:

Gluing furniture to the ceiling

Going to such trouble to catch mice

The mice fainted

The mice were fooled

Characters:

Mice that talk

Mice that stand on their heads

Mice that think they are upside down

The mice became hysterical

Mice that laugh and joke

Text for “Hare Heralds the Earthquake”
can be found in the PIRLS Reader Booklet,
located in the back of this publication.

PIRLS Reader



The Natural World



PIRLS

Progress in International
Reading Literacy Study

Main Survey 2001

Questions Hare Heralds the Earthquake

1. What was the hare's greatest worry?

- ☐ A a lion
- ☐ B a crash
- * ☒ C an earthquake
- ☐ D a falling fruit

2. What made the whole earth shake?

- ☐ A an earthquake
- * ☒ B an enormous fruit
- ☐ C the fleeing hares
- ☐ D a falling tree

3. Things happened quickly after the hare shouted "Earthquake!"
Find and copy **two** words in the story that show this.

 1. _____

 2. _____

* correct answer

4. Where did the lion want the hare to take him?



5. Why did the lion drop the fruit onto the ground?

- ☐ (A) to make the hare run away
- ☐ (B) to help the hare get the fruit
- * ☒ (C) to show the hare what had happened
- ☐ (D) to make the hare laugh

6. How did the hare feel after the lion dropped the fruit onto the ground?

- ☐ (A) angry
- ☐ (B) disappointed
- * ☒ (C) foolish
- ☐ (D) worried

* correct answer

7. Write **two** ways in which the lion tried to make the hare feel better at the end of the story.



1.



2.

8. Do you think the lion liked the hare? What happens in the story that shows this?



9. How did the hare's feelings change during the story?



At the beginning of the story the hare felt

because



At the end of the story the hare felt

because

10. You learn what the lion and the hare are like from the things they do in the story. Describe how the lion and the hare are different from each other and what each does that shows this.



11. What is the **main** message of this story?

- ☐ A Run away from trouble.
- * ☐ B Check the facts before panicking.
- ☐ C Even lions that seem kind cannot be trusted.
- ☐ D Hares are fast animals.



Stop

End of this part of the booklet.
Please stop working.

* correct answer

Hare, Item 3

Things happened quickly after the hare shouted “Earthquake!” Find and copy two words in the story that show this.

Process: Examine and Evaluate Content, Language, and Textual Elements

2 – Complete Comprehension

These responses demonstrate complete comprehension of specific language used in the story that conveys the pace of story events.

Evidence: The response provides two of the words listed below.

1 – Partial Comprehension

These responses demonstrate partial comprehension of specific language used in the story that conveys the pace of story events.

Evidence: The response provides only one of the words listed below.

Words in the Story that Show How Quickly Things Happened

| | |
|----------------|-----------------|
| <i>Raced</i> | <i>Speeding</i> |
| <i>Run</i> | <i>Panting</i> |
| <i>Madly</i> | <i>Babbled</i> |
| <i>Pounded</i> | <i>Soon</i> |

Hare, Item 4

Where did the lion want the hare to take him?

Process: Focus on and Retrieve Explicitly Stated Information and Ideas

1 – Acceptable Response

These responses identify the explicitly stated location where the lion wanted the hare to take him.

Evidence:

The response may state that the lion wanted the hare to take him to where the dreadful earthquake happened, as stated explicitly in the text.

Example:

» To where the dreadful disaster happened.

Or, the response may indicate that the lion wanted the hare to show him the place where the hare thought he felt an earthquake – acknowledging that it was not an earthquake.

Example:

» To where the Hare was when he thought there was an earthquake.

Or, the response states that the lion wanted the hare to take him to the hare’s house, which is where the hare heard the loud crash.

» To the hare’s house.

Hare, Item 7

Write two ways in which the lion tried to make the hare feel better at the end of the story.

Process: Make Straightforward Inferences

2 – Complete Comprehension

These responses demonstrate complete comprehension by identifying two pieces of information in the story from which the lion's concern for the hare can be inferred.

Evidence: The response describes **two** of the ways listed below.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying one piece of information in the story from which the lion's concern for the hare can be inferred.

Evidence: The response describes only **one** of the ways listed below.

Ways in which the Lion Tried to Make the Hare Feel Better

The lion smiled at the hare

He told the hare not to worry – “never mind”

He told the hare that he is sometimes afraid too

Showed him what made the “earthquake”

Told him not to be afraid

Called him “little brother”

Tried to make him not feel silly

He laughed

The lion was calm

Hare, Item 8

Do you think the lion liked the hare? What happens in the story that shows this?

Process: Interpret and Integrate Ideas and Information

1 – Acceptable Response

These responses identify information from the story that supports an interpretation of the lion's feelings toward the hare.

Evidence:

The response provides an opinion about the lion's feelings toward the hare. The opinion is supported with an appropriate description of a specific story event or idea, or an appropriate generalization based on events in the story that demonstrates the lion's feelings.

Example:

» Yes he does. He showed the hare that there really wasn't an earthquake.

Hare, Item 9

How did the hare's feelings change during the story?

At the beginning of the story the hare felt _____ because _____.

At the end of the story the hare felt _____ because _____.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating information from across the story to interpret how the hare's feelings changed during the story.

Evidence:

The response provides an appropriate feeling and explanation for both the beginning and ending of the story, as described below.

1 – Partial Comprehension

These responses demonstrate partial comprehension by interpreting the hare's feelings in one part of the story.

Evidence:

The response provides an appropriate feeling and explanation for either the beginning or ending of the story as described below. An appropriate feeling may be provided for the other part of the story, but without an appropriate explanation.

Appropriate Feelings and Example Explanations

Beginning of the story: The response may describe the hare's feelings as fearful, worried, or anxious.

Example explanation:

» because he thought there was going to be an earthquake

Ending of the Story: The response may describe the hare's feelings as relieved or silly.

Example explanation:

» because he found out there really wasn't an earthquake

Hare, Item 10

You learn what the lion and the hare are like from the things they do in the story. Describe how the lion and the hare are different from each other and what each does that shows this.

Process: Interpret and Integrate Ideas and Information

3 – Extensive Comprehension

These responses demonstrate extensive comprehension by integrating ideas from across the text to fully support an interpretation of the difference between the two characters.

Evidence:

The response conveys understanding of the difference between the lion and the hare by describing a contrasting character trait and providing a specific action of each character to support that trait.

Example:

» The hare doesn't stop to think. He just ran off as soon as he heard the crash without going to see what it was. The lion is thoughtful. He made the hare go back and see what made the noise.

OR, the response provides a generalization for the basis of the difference supported by specific actions.

» They do different things when there is danger. The hare ran away when he heard the noise. The lion wanted to see what made the noise.

(continues overleaf)

Hare, Item 10 (Continued)

2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension of the characters.

Evidence:

The response provides a description of the difference between the lion and the hare, but provides a story event to support the description of **neither or only one** of the characters.

Examples:

» The lion is brave and the hare is nervous. The lion went back to look at the “earthquake.”

OR, the response provides a specific and contrasting action taken by each character, but does not provide a description or generalization of either character.

» The hare is different from the lion because the hare warns that an earthquake is coming and lion convinces him that it isn’t an earthquake.

1 – Minimal Comprehension

These responses demonstrate limited comprehension of the characters.

Evidence:

The response describes the actions or provides a generalization of a trait of only one of the characters.

Example:

» The hare ran away because he thought there was an earthquake.

Text for “Nights of the Pufflings” can be found in the PIRLS Reader Booklet, located in the back of this publication.

PIRLS Reader



The Natural World



PIRLS

Progress in International
Reading Literacy Study

Main Survey 2001

Questions **Nights of the Pufflings**

1. Why are puffins clumsy at takeoffs and landings?

- ☐ A They live in a land of ice.
- ☐ B They hardly ever come to shore.
- ☐ C They spend time on high cliffs.
- * ☐ D They have chunky bodies and short wings.

2. Where do the puffins spend the winter?

- ☐ A inside the cliffs
- ☐ B on the beach
- * ☐ C at sea
- ☐ D on the ice

3. Why do the puffins come to the island?

- ☐ A to be rescued
- ☐ B to look for food
- * ☐ C to lay eggs
- ☐ D to learn to fly

* correct answer

4. How does Halla know the pufflings are about to fly?

- ☐ A Parents bring fish to the pufflings.
- * ☒ B Flowers are in full bloom.
- ☐ C Chicks are hidden away.
- ☐ D Summer has just begun.

5. What happens during the nights of the pufflings?

- ☐ A Puffin pairs tap-tap-tap their beaks together.
- * ☒ B Pufflings take their first flight.
- ☐ C Puffin eggs hatch into chicks.
- ☐ D Pufflings come ashore from the sea.

6. What could the people in the village do to stop the pufflings from landing there by mistake?

- * ☒ A turn off the lights
- ☐ B get the boxes ready
- ☐ C keep the cats and dogs inside
- ☐ D shine their torches in the sky

* correct answer

Questions 7 and 8 ask you to explain how Halla rescues the pufflings.

7. Explain how Halla uses her torch to rescue the pufflings.



8. Explain how Halla uses the cardboard boxes to rescue the pufflings.



9. According to the article, which of these is a danger faced by the pufflings?

- ☐ A drowning while landing in the sea
- ☐ B getting lost in the burrows
- ☐ C not having enough fish from their parents
- * ☐ D being run over by cars and trucks

* correct answer

10. Why does it need to be daylight when the children release the pufflings? Use information from the article to explain.



11. What do the pufflings do after Halla and her friends release them?

- ☐ A walk on the beach
- ☐ B fly from the cliff
- ☐ C hide in the village
- * ☐ D swim in the sea

12. Write **two** different feelings Halla might have after she has set the pufflings free. Explain why she might have each feeling.



1.



2.

* correct answer

13. Would *you* like to go and rescue pufflings with Halla and her friends? Use what you have read to help you explain.





Stop

End of this part of the booklet.
Please stop working.

Pufflings, Item 7

Explain how Halla uses her torch to rescue the pufflings.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating specific information from the article to explain fully how Halla uses the torch.

Evidence:

The response provides an appropriate explanation for how Halla uses the torch. The explanation includes an explicit reference to rescuing the pufflings as described in the text. In order to be considered a complete explanation, it must indicate that the torch facilitates *finding the pufflings at night* or *locating pufflings that are hiding*.

Example:

» It helps Halla find the pufflings in the dark.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying general information from the article to explain how Halla uses the torch.

Evidence:

The response provides an appropriate, but general, explanation for how Halla uses the torch. The explanation is not inconsistent with the text and may mention that Halla is looking for or finding the pufflings. However, it **does not** include an explicit reference to *finding the pufflings at night* or *locating pufflings that are hiding*.

Example:

» It helps her wander the village.

Pufflings, Item 8

Explain how Halla uses the cardboard boxes to rescue the pufflings.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating specific information from the article to explain fully how Halla uses the cardboard boxes.

Evidence:

The response provides an appropriate explanation for how Halla uses the cardboard boxes. The explanation includes an explicit reference to rescuing the pufflings as described in the text. In order to be considered a complete explanation, it must indicate that the cardboard boxes facilitate *keeping the pufflings safe* or *transporting the pufflings*.

Example:

» She puts the pufflings in the boxes to keep them safe.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying general information from the article to explain how Halla uses the cardboard boxes.

Evidence:

The response provides an appropriate, but general, explanation for how Halla uses the cardboard boxes. The explanation is not inconsistent with the text. However, it **does not** include an explicit reference to *keeping the pufflings safe* or *transporting them*.

Example:

» She puts the pufflings in them.

Pufflings, Item 10

Why does it need to be daylight when the children release the pufflings? Use information from the article to explain.

Process: Make Straightforward Inferences

1 – Acceptable Response

These responses provide an appropriate inference for why the pufflings must be released in the daylight.

Evidence:

The response demonstrates understanding that the pufflings can become confused at night, or that they can see their target more clearly in daylight.

Example:

» If the pufflings were released in the dark, the lights of the village would attract them back there.

Or, the response may focus on the needs of the children in releasing the pufflings by citing specific information from the article that shows why daylight is necessary.

Example:

» It would be hard for the children to see what they were doing at the beach at night.

Pufflings, Item 12

Write two different feelings Halla might have after she has set the pufflings free. Explain why she might have each feeling.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating ideas from across the text to identify and explain Halla's feelings.

Evidence:

The response identifies **two different feelings** and provides an appropriate **explanation for each feeling**. The two feelings identified may be both positive or both negative, or the two may represent conflicting feelings. The explanation for each feeling draws on different information from the text and is a plausible justification for the feeling.

Examples:

» She feels sad to say goodbye to the pufflings. But she is happy that they made it to the water.

1 – Partial Comprehension

These responses demonstrate partial comprehension of Halla's feelings.

Evidence:

The response identifies two different feelings. The two feelings identified may be both positive or both negative, or the two may represent conflicting feelings. However, one of the feelings is not supported with appropriate information from the text.

Example:

» She is sad, but also happy that they are rescued.

Or, the response identifies only one feeling, and provides an explanation for that feeling that is based on appropriate information in the text.

Example:

» She is happy that she was able to help them get to the sea.

Pufflings, Item 13

Would you like to go and rescue pufflings with Halla and her friends? Use what you have read to help you explain.

Process: Examine and Evaluate Content, Language, and Textual Elements

2 – Complete Comprehension

These responses demonstrate complete comprehension of the article by supporting a personal evaluation of its content.

Evidence:

The response provides a personal evaluation, supported with one specific piece of information from the text.

Example:

» Yes, it would be fun to take them to the beach.

1 – Partial Comprehension

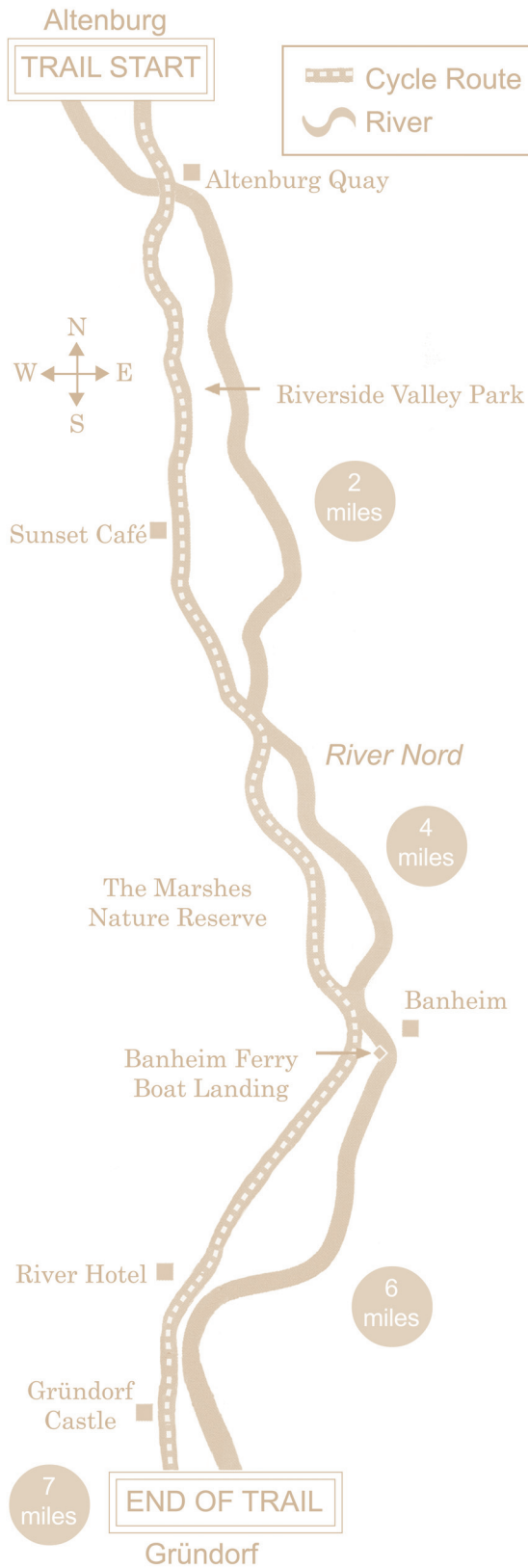
These responses demonstrate complete comprehension of the article by supporting a personal evaluation of its content.

Evidence:

The response provides a personal evaluation that is supported by a generalization of the article's content. The generalization may be based mostly on personal experience, but is related to the article.

Example:

» I would like to help her. I think it is important to save baby birds.



Text for “River Trail” can be found in the brochure located in the back of this publication.

Questions River Trail



Take out the leaflet called *Follow the River Nord Trail*. The questions in this section are about this leaflet.



Raise your hand if you do not have the leaflet.

Questions 1 and 2 ask you about different parts of the leaflet. Each part asked about is shown next to the question.

1. What is the **main** purpose of the section called *The River Nord Trail*?
 - (A) to describe what Gründorf Castle looks like
 - (B) to explain about bikes
 - (C) to display the bike hire prices
 - * (D) to give directions

The River Nord Trail

The River Nord Trail is flat and easy to cycle on, with plenty to see along the way.

Start from Altenburg, keeping to the east bank of the river. Go over the bridge at Altenburg Quay.

This takes you to the Riverside Valley Park. Approximately 2 miles from the start you reach the Sunset Café. To proceed further you need to continue on the west bank (see map).

You then proceed past The Marshes Nature Reserve.

You can stop to visit the historic port of Banheim by catching the little ferry boat across the River Nord.

Continue along the trail and enjoy the wildlife area—full of birds—which is on the way to the River Hotel.

A little further on you reach Gründorf. You can now follow a quiet country lane around Gründorf Castle grounds. You will see part of the large herd of fallow deer often at close quarters.

This brings you to the end of the trail.

2. What is the **main** purpose of this section of the leaflet?
 - (A) to show you where the trail goes
 - * (B) to give you information about bikes you can hire
 - (C) to describe what happens on the trail
 - (D) to teach you about riding bikes

* correct answer

Zippy Bike Hire

Cycling is fun for everyone & healthy too!

Close and quiet? 7 miles of flat easy trails take you right to the heart of the city and through the River Nord.

Wherever like you fancy ZIPPY has the right one for you. Senior bikes, mountain bikes, roadsters, children's bikes, trailers for kids and adult seats. Taking them for adults and groups, with comfortable seats and 27 gear gears.

All ZIPPY bikes are replaced every year and regularly serviced. Chain lubricants, pumps, valves and more are free to all.

For children under 7 we have bikes that attach to an adult bike—great for keeping children safe when they're out and exploring. And for us too! We have a tandem & we have comfortable adult seats and trailers which attach to the adult's bike. For the ones who enjoy riding we have kids' bikes with or without stabilisers.

What does it cost to hire a bike?

| Vehicle Hire | Half Day | Full Day | Full Week |
|-------------------|----------|----------|-----------|
| Adults/Youth | £ 12 | £ 18 | £ 84 |
| Children under 10 | £ 8 | £ 10 | £ 48 |
| Children under 7 | £ 2 | £ 3 | £ 12 |

TRY before you BUY

Photo: Zippy

Photo: Zippy

3. Where does the River Trail start?

- ☐ A Banheim
- ☐ B Gründorf
- * ☒ C Altenburg
- ☐ D Riverside Valley Park

4. Number these places in the order you would see them on the River Trail from the beginning to the end. Number 1 has been done for you.

- ___ Gründorf Castle
- ___ Banheim
- 1 Riverside Valley Park
- ___ River Hotel

5. How much would it cost a 10-year-old child to hire a bike for a full day?



* correct answer

6. Zippy Bike Hire rents out equipment for children.
Write **two** things that are for children.



1. _____



2. _____

7. What information about Zippy bikes tells you that the bikes for hire are in good condition?



Questions 8 and 9 are about a family with two adults and two children, one 10 years old and one 3 years old. They are planning to spend a day cycling along the River Trail.

8. Which bikes would the family need? Use what you have read in the leaflet to answer.



9. Which place on the River Trail could the family visit? Explain why they might like to go there.



10. Read the comments of Jane, Alex, John, and Khalil. Draw a line from each person's name to the place on the map that shows where they are standing on the River Trail. One has been done for you.

Legend:

- Cycle Route
- ~ River

Locations on the River Trail:

- Altenburg (TRAIL START)
- Altenburg Quay
- Riverside Valley Park
- Sunset Café
- The Marshes Nature Reserve
- Banheim
- Banheim Ferry Boat Landing
- River Hotel
- Gründorf Castle
- Gründorf (END OF TRAIL)

Comments and Names:

- Jane:** "Just stopped to buy a snack at the Sunset Café." (Line drawn to Sunset Café)
- Alex:** "There's a lovely little port town on the other side of the river."
- John:** "I can see hundreds of birds here."
- Khalil:** "The deer have just been scared off by our clanking bike!"

11.
- Draw lines to show your answers to the questions below.
One has been done for you.

Where can you find
a short sentence
persuading you to
try cycling?

Which sentence
invites you to try
the River Trail?


Zippy Bike Hire

**Cycling is fun for everyone
& healthy too!**

*Come and explore 7 miles of flat easy
traffic-free cycle routes in beautiful
countryside following the River Nord...*

Whatever bike you fancy, ZIPPY has the
right one for you. Great choice...mountain
bikes, tandems, children's bikes, trailers for
kids and child seats. Trekking bikes for
ladies and gents, soft comfortable seats and
21 easy gears.

All ZIPPY bikes are replaced every year
and regularly serviced. Cycle helmets,
pumps, rucksacks and locks are free to all.




Trailer

For children under 7 we have bikes that
attach to an adult bike—great for keeping
children where they should be and helping
them out on long rides. **For children
under 5** we have comfortable child seats
and trailers which attach to the adult's bike.
For the more able young cyclist we have
little bikes with or without stabilisers.

What does it cost to hire a bike?
(Prices in £)

| Bicycle Hire | Half Day | Full Day | Per Week |
|---------------------|-------------|-------------|-------------|
| Adults / Trailer | 8 | 12 | 50 |
| Children (under 16) | 6 | 9 | 30 |
| Child Seat | 2 | 3 | 12 |

TRY before you BUY



Where can you find
information about
**bike hire
charges**?

Where can you
find out about the
**range of adult
bikes** for hire?

River, Item 4

Number these places in the order you would see them on the River Trail from the beginning to the end. Number 1 has been done for you.

- ___ Grundorf Castle
- ___ Banheim
- 1 Riverside Valley Park
- ___ River Hotel

Process: Make Straightforward Inferences

1 – Acceptable Response

These responses infer the appropriate order of sites along the river trail.

Evidence:

The response accurately numbers the sentences as shown below. In order to receive full credit, each sentence must have the appropriate number.

Appropriate Ordering of Sentences

4 Grundorf Castle

2 Banheim

1 Riverside Valley Park

3 River Hotel

River, Item 5

How much would it cost a 10-year-old child to hire a bike for a full day?

Process: Make Straightforward Inferences

1 – Acceptable Response

These responses infer the appropriate cost of hiring a bike from information presented in tabular form.

Evidence:

The response accurately states the amount indicated at the intersection of the second row (Children under 16) and second column (Full Day) of the “What does it cost to hire a bike” table (back of leaflet). It may or may not include the unit of currency with the amount.

River, Item 6

Zippy Bike Hire rents out equipment for children. Write two things that are for children.

Process: Focus on and Retrieve Explicitly Stated Information and Ideas

2 – Complete Comprehension

These responses demonstrate complete comprehension by identifying two pieces of equipment that are specifically for children.

Evidence: The response identifies two pieces of equipment listed below.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying one piece of equipment that is specifically for children.

Evidence: The response identifies only one piece of equipment listed below.

Equipment for Children

Children's bikes

Trailers

Child seats/comfortable seats/seats

Bikes that attach to adult bikes

Little bikes with/without stabilizers

Stabilizers

River, Item 7

What information about Zippy bikes tells you that the bikes for hire are in good condition?

Process: Make Straightforward Inferences

1 – Acceptable Response

These responses identify appropriate information from which the condition of the bikes can be inferred.

Evidence:

The response provides information from the leaflet regarding the maintenance of the bikes. It may focus on the fact that the bikes are regularly serviced, or on the fact that they are replaced each year.

Example:

» They are replaced every year. That means they are in good condition.

River, Item 8

[Questions 8 and 9 are about a family with two adults and two children who are 10 years old and 3 years old. They are planning to spend a day cycling along the River Trail.] Which bikes would the family need? Use what you have read in the leaflet to answer.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating information from across the leaflet to identify specific equipment appropriate for an entire family.

Evidence:

The response identifies appropriate equipment that could accommodate all of the family members. One piece of equipment is suitable for a 3-year-old child.

Example:

» They will need two adult bikes, one child's bike, and a child's seat.

1 – Partial Comprehension

These responses demonstrate partial comprehension of information in the leaflet by identifying specific equipment appropriate for some family members.

Evidence:

The response identifies at least two specific and different types of equipment offered. However, not all of the family members are appropriately accommodated for in the selection of equipment or more equipment than is necessary is identified. Or, the number of pieces of equipment is not specified.

Example:

» A mountain bike and a trailer.

River, Item 9

[Questions 8 and 9 are about a family with two adults and two children who are 10 years old and 3 years old. They are planning to spend a day cycling along the River Trail.] Which place on the River Trail could the family visit? Explain why they might like to go there.

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

These responses demonstrate complete comprehension by interpreting information provided in the leaflet about places to visit.

Evidence:

The response identifies a specific place along the river described in the leaflet. It provides an explanation for visiting that is based on information stated in the leaflet about that place or is an appropriate activity for the type of place.

Example:

» One place on the trail they could visit is the Sunset Café because after 2 miles they might be hungry and tired.

1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying information provided in the leaflet about places to visit.

Evidence:

The response identifies a specific place along the river described in the leaflet. However, no explanation is provided for visiting that is based on information stated in the leaflet.

Example:

» They could visit the Marshes Nature Reserve.

Or, the response provides an explanation for visiting that is vague, inappropriate, or unrelated to information stated in the leaflet.

Example:

» One place they could visit is the Sunset Café because it would be nice.

River, Item 10

Read the comments of Jane, Alex, John, and Khalil. Draw a line from each person’s name to the place on the map that shows where that person is standing on the River Trail. One has been done for you.

Process: Interpret and Integrate Ideas and Information

3 – Extensive Comprehension

These responses demonstrate extensive comprehension by integrating information from across the leaflet to interpret descriptions of specific river locations.

Evidence:

The response accurately matches all three comments with specific locations along the river – as indicated below.

2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension by integrating information from across the leaflet to interpret some descriptions of specific river locations.

Evidence:

The response accurately matches only two of the three comments with specific locations along the river – as indicated below.

1 – Minimal Comprehension

These responses demonstrate limited comprehension by interpreting one description of a specific river location.

Evidence:

The response accurately matches only one of the three comments with a specific location along the river – as indicated below.

Specific Locations Along the River Matched to Comments

| Comment | | Location |
|---|---|---|
| Alex: ‘There’s a lovely little port town on the other side of the river.’ | ➔ | Banheim Ferry Boat Landing [also accept responses pointing to Banheim] |
| John: ‘I can see hundreds of birds here.’ | ➔ | Between the Banheim Ferry Boat Landing and River Hotel, or at the Marshes [Note: response cannot be pointed directly at Banheim Ferry Boat Landing or the River Hotel] |
| Khalil: ‘The deer have just been scared off by our clanking bike!’ | ➔ | Grundorf Castle |

River, Item 11

Draw lines to show your answers to the questions below. One has been done for you.

Process: Examine and Evaluate Content, Language, and Textual Elements

3 – Extensive Comprehension

These responses demonstrate extensive comprehension by identifying the purpose and location of specific information provided throughout the leaflet.

Evidence:

The response accurately matches all three questions to specific information in the leaflet – as indicated below.

2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension by identifying the purpose and location of specific information provided in some parts of the leaflet.

Evidence:

The response accurately matches only two of the three questions to specific information in the leaflet – as indicated below.

1 – Minimal Comprehension

These responses demonstrate limited comprehension by identifying the purpose and location of specific information provided in one part of the leaflet.

Evidence:

The response accurately matches only one of the three questions to specific information in the leaflet – as indicated below.

Specific Information in the Leaflet Matched to Questions

| Questions | | Information in the Leaflet |
|--|---|--|
| Which sentence invites you Trail? | → | 'Come and explore 7 miles of flat easy traffic-free River cycle routes in beautiful countryside following the River Nord...' |
| Where can you find information about bike hire charges ? | → | 'What does it cost to hire a bike?' price table |
| Where can you find out about the range of adult bikes for hire? | → | Paragraph beginning with 'Whatever bike you fancy...' |



D

Appendix D

Reading Items Used for Describing Each Benchmark*

* Not all items were used. Some anchored above the Top 10% Benchmark.

Lower Quarter Benchmark Items

Literary

| | | Credit Awarded Constructed Response |
|-----|--|---|
| F02 | Combines, retrieves, and visualizes concrete descriptive information and identifies matching picture | |
| F04 | Retrieves concrete, relevant, explicitly-stated detail in the text | |
| F09 | Reproduces one (of two) explicitly stated character actions | Full |
| F03 | Identifies and deduces reason for an action from a conversation | |
| F10 | Gives a simple statement about a character's feeling that is clearly suggested at a particular point of the story | Full |
| H01 | Retrieves a relevant explicitly-stated detail | |
| H02 | Recognizes the cause of an explicitly-stated event | |
| H04 | Reproduces one detail/request explicitly-stated (through dialogue) by a character | Full |
| H05 | Identifies the intention behind the central action of the character | |
| H06 | Identifies the feeling of a major character at a particular point in the story | |
| H07 | Given a character's intention, produces one (of two) of a range of clearly-stated actions related to the intention | Partial |
| H09 | Gives a simple statement about a main character's feeling that is clearly suggested at one particular point in the story, and then identifies the cause of the feeling | Partial |
| M01 | Recognizes the cause/reason/motivation for the main character's action when it is strongly implied | Full |
| M02 | Retrieves explicitly stated detail | |
| M06 | Reproduces one (of two) explicitly stated idea of the character's presented in dialogue | Partial |
| M07 | Copies one sentence conveying the feelings of the primary characters | Full |
| M10 | Reproduces one explicitly stated action by a (main) character | Full |

Informational

| | | |
|-----|--|---------|
| A01 | Reproduces explicitly-stated information | Full |
| A03 | Reproduces explicitly-stated information | Full |
| A04 | Produces a simple inference | Partial |
| A05 | Recognizes a simple inference | |

Lower Quarter Benchmark Items (Continued)

Informational (Continued)

| | Credit Awarded Constructed Response |
|--|---|
| A06 Recognizes explicitly-stated information | |
| A07 Makes a low-level inference | Partial |
| A08 Reproduces explicitly-stated information | Partial |
| L01 Retrieves explicitly-stated information | |
| L04 Reproduces explicitly-stated information | Partial |
| N03 Recognizes explicitly stated information | |
| R03 Recognize explicitly-stated information | Full |
| R04 Sequences explicitly-stated information | Full |

Median Benchmark Items

Literary

| | |
|--|---------|
| C01 Establishes the sequence of key (main) events | Full |
| C03 Given a particular point in the story (beginning), infers the character's aims from narration/description of events and the character's reaction to the events | Full |
| C05 Classifies the character's actions by recognizing consequences of the action from narration and dialogue | |
| C06 Makes connections between clearly related sentences that state the immediate problem of the character | Full |
| C07 Identifies the main character's feelings at a particular point in the story | |
| C08 Reproduces an event by making connections between clearly related sentences | Partial |
| C10 Gives a simple statement about a main character's feeling that is clearly suggested at one particular point in the story | Partial |
| C11 Gives a main character's importance to the plot | Partial |
| F01 Identifies the narrator (in a first person story) from a range of clues in the first part of the story and confirmed by the text and pictures | |
| F06 Explains a character's reaction by making connections between clearly related sentences | Full |
| F08 Infers the significance of a character's action from subsequent events | Full |

Median Benchmark Items (Continued)

Literary (Continued)

| | | Credit Awarded Constructed Response |
|-----|--|---|
| F09 | Reproduces explicitly-stated actions of a character in relation to a particular objective/aim/goal (broader understanding) | Full |
| F13 | Recognizes lesson to be learned from the story | |
| H03 | Examines a particular part of the story to find one word that expresses the quality of "quickness" | Partial |
| H08 | Gives an interpretation of a relationship between characters and supports it with events from the story | Full |
| H09 | Contrasts the clearly-suggested feelings of the character at the beginning and end of the story and explains each of them | Full |
| H11 | Recognizes lesson to be learned from the story | |
| M05 | Recognizes explicitly-stated supporting detail | |
| M06 | Reproduces two explicitly-stated and related ideas of the character's presented in dialogue | Full |
| M09 | Recognizes the cause of an event by making connections between two clearly related sentences | |
| M12 | Identifies (various) character traits in response to a complex question | Partial |
| M13 | Recognizes the overall intended effect of the story | |

Informational

| | | |
|-----|--|---------|
| A07 | Produces two (low-level) simple inferences | Partial |
| A08 | Reproduces two explicitly-stated pieces of information | Full |
| A09 | Supports reaction to information in text with specific information from the text (sentence-level) | Partial |
| L03 | Reproduces explicitly stated information (low-level inference) | Full |
| L08 | Locates and uses information in two closely related sentences to extract a specific fact or detail (fact/piece of information) | Partial |
| L09 | Retrieves explicitly stated information | |
| L11 | Recognizes a general characterization/description of text by combining information (topic covered) across text | |
| L12 | Gives a broad statement or specific example of author's view of subject based on whole text (provide a general conclusion of the positive intention of the text) | Partial |

Median Benchmark Items (Continued)

Informational (Continued)

| | | Credit Awarded Constructed Response |
|-----|---|---|
| N01 | Makes low-level inference to recognize explicitly-stated information | |
| N09 | Locates specific (explicit) information imbedded in continuous text | |
| N12 | Integrates information across text to provide an interpretation of a person's feelings and gives text-based support | Partial |
| R05 | Locates appropriate section of leaflet and extract information from a two-way table | Full |
| R06 | Locates and reproduce one piece of explicitly stated piece of information | Partial |
| R08 | Based on low-level inference, locates appropriate section of leaflet and extract some relevant information | Partial |
| R09 | Based on low-level inference, locates appropriate section of leaflet and extract some relevant information | Partial |
| R10 | Makes a straightforward inference to match two specific pieces of information | Partial |
| R11 | Locates specific information from leaflet from a specific section | Partial |

Upper Quarter Benchmark Items

Literary

| | | |
|-----|--|---------|
| C02 | Explains the cause of an event by making connections between two clearly related sentences | Full |
| C04 | Recognizes pretty explicit information (last to be chosen) | |
| C09 | Recognizes language that is needed to describe interpretations of character's actions drawing on different parts of the story | |
| C10 | Contrasts clearly suggested feelings of a character at the beginning and end of the story and gives an explanation for the change (plot-based) | Partial |
| C12 | Recognizes the idea of personification | |
| C13 | Recognizes main "message" (abstract norms, higher level of generality, judgments) | |
| F11 | Recognizes the idea of ending a story with a joke | |
| H07 | Given a character's intention, produces two of a range of clearly stated actions related to the intention | |
| H10 | Contrasts action/traits of two characters | Partial |

Upper Quarter Benchmark Items (Continued)

Literary (Continued)

| | Credit Awarded Constructed Response |
|---|---|
| M03 Recognizes the cause of the event by making connections between two clearly related sentences | |
| M11 Makes interpretation and support with text-based reason | Full |

Informational

| | |
|---|---------|
| A02 Retrieves and matches two explicitly stated pieces of information | |
| A07 Makes three low-level inferences (across two sentences) | Full |
| A10 Locates embedded information and recognize its section heading | |
| A11 Provides a distinguishing feature of a text type to support a preference | Full |
| L05 Recognize the meaning of a simple metaphor (understanding of figurative language) | |
| L06 Uses information in the text to make an inference about the importance of the information for today (inference, judgment, supporting statement) | Full |
| L07 Integrates ideas and information (dates) across text and personal knowledge to recognize a reason for an event | |
| L10 Demonstrates an understanding of the information conveyed in an abstract title by giving an example from the text (make an appropriate interpretation of an abstract concept and support with an example from the text) | Partial |
| N02 Retrieves explicitly stated information that seems counter-intuitive | |
| N04 Makes an inference based on connections across several sentences | |
| N05 Retrieves explicitly stated information | |
| N11 Makes an inference based on connections across several sentences | |
| N13 Gives a general reaction to text and gives an example | Full |
| R01 Recognizes correct description of purpose of text | |
| R02 Recognizes correct description of purpose of text | |
| R06 Locates appropriate section of leaflet and reproduces two explicitly-stated pieces of information | Full |
| R07 Makes straightforward inference based on embedded information | Full |
| R09 Makes an interpretation to justify a choice based on information in the text | Full |

Upper Quarter Benchmark Items (Continued)

Informational (Continued)

| | | Credit Awarded Constructed Response |
|-----|--|---|
| R10 | Makes connections among three different representations (text and graphic) to match information | Partial |
| R11 | Makes inferences to locate an embedded piece of information in a recreational activities leaflet | Partial |

Top 10% Benchmark Items

Literary

| | | |
|-----|--|---------|
| C08 | Describes cause-and-effect relationship | Full |
| C10 | Contrasts clearly stated feelings at beginning and end and gives interpretation/larger significance of reasons for change (use of background knowledge, integrate, and interpret ideas from across the text) | Full |
| C11 | Describes abstract/larger significance function of character in developing theme | Full |
| H10 | Integrates and interpret information to contrast characters traits and give textual support | Full |
| F07 | Integrates ideas across text to interpret the character's feelings about the setting | Full |
| F12 | Interprets initial feelings and contrasts with feeling at the end or supports feelings | Full |
| M04 | Integrates and interprets information to explain character's intentions | Full |
| M08 | Recognizes some elements of narrative technique | |
| M12 | Integrates and interprets to describe a character's trait and gives textual support | Partial |

Informational

| | | |
|-----|--|------|
| A09 | Integrates information across two different texts to justify a preference | Full |
| N06 | Makes an interpretation about a cause and effect relationship and recognizes how an outcome could be changed | |
| N10 | Gives a reason based on having made an interpretation about a cause and effect relationship (understanding the same cause/effect relationship) | Full |
| N12 | Integrates information across text to provide an interpretation of two different feelings a person might have and gives text-based support | Full |
| R08 | Given a real-world problem situation, locates appropriate section of recreational activities leaflet, and determines a plausible/suitable solution | Full |

A large, stylized white letter 'E' is centered on a background of blurred, warm-toned wooden planks. The planks run diagonally from the top-left to the bottom-right, creating a sense of depth and texture. The color of the wood is a rich, golden-brown, and the blurring effect gives it a soft, dreamlike quality. The letter 'E' is a classic, slightly serifed font, standing out prominently against the textured background.

E

Appendix E

Sweden - Grade 3 Reading Achievement

Exhibit E.1: Sweden – Selected Reading Achievement Results

ISC

4th Grade
PIRLS 2001

Distribution of Reading Achievement - Third Grade

| Reading Achievement | Mean | Years of Formal Schooling | Average Age | 5th Percentile (Scale Score) | 25th Percentile (Scale Score) | 50th Percentile (Scale Score) | 75th Percentile (Scale Score) | 95th Percentile (Scale Score) |
|---------------------|-----------|---------------------------|-------------|------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| Overall | 520 (2.7) | 3 | 9.8 | 379 (5.1) | 473 (3.8) | 527 (4.0) | 573 (2.6) | 632 (3.0) |
| Literary | 523 (2.9) | 3 | 9.8 | 383 (5.7) | 477 (4.9) | 530 (4.0) | 576 (2.0) | 638 (2.5) |
| Informational | 514 (2.7) | 3 | 9.8 | 371 (4.4) | 465 (4.3) | 521 (2.6) | 570 (2.2) | 633 (2.2) |

Gender Differences in Reading Achievement - Third Grade

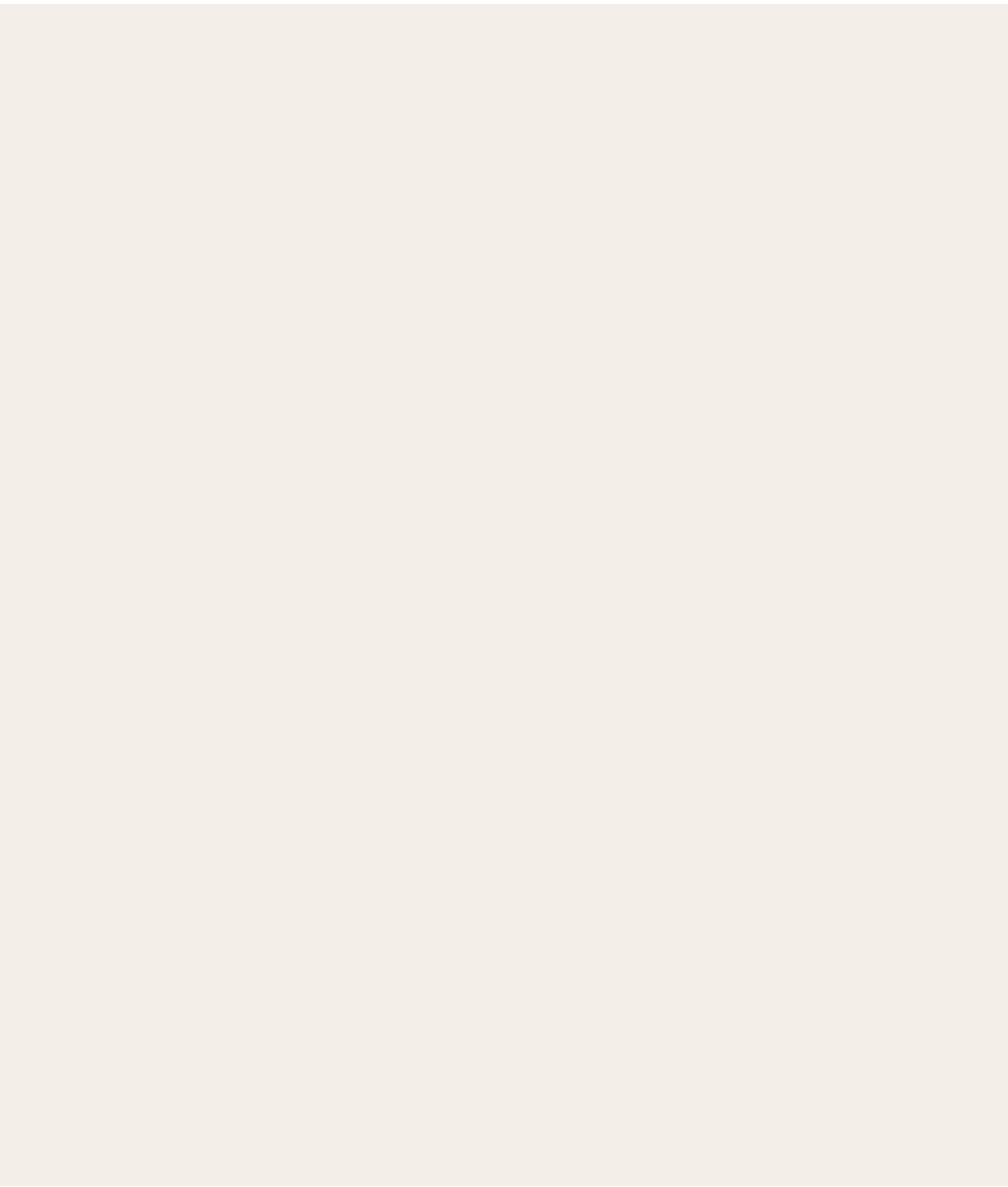
| Reading Achievement | Girls Mean | Boys Mean | Difference |
|---------------------|------------|-----------|------------|
| Overall | 530 (3.0) | 509 (3.0) | 21 (2.7) |
| Literary | 537 (3.1) | 509 (3.3) | 28 (3.0) |
| Informational | 521 (2.8) | 507 (3.1) | 14 (2.6) |

Percentages of Students Reaching International Benchmarks in Reading

| Benchmark | Top 10% | Top Quarter | Top Half | Bottom Quarter |
|---------------------|---------|-------------|----------|----------------|
| Percent of Students | 9 (0.8) | 27 (1.2) | 59 (1.4) | 86 (1.1) |

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

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



A large, stylized white letter 'F' is centered on a background of blurred, warm-toned wooden planks. The planks run diagonally from the top-left to the bottom-right, creating a sense of depth and texture. The color of the wood is a rich, golden-brown, and the blurring effect gives it a soft, dreamlike quality. The letter 'F' is a classic, slightly serifed font, standing out prominently against the textured background.

F

Appendix F

Acknowledgements

The design and development of PIRLS 2001 was achieved through the collaborative efforts of individuals around the world. Staff from the national research centers in each participating country, members of advisory committees, the International Association for the Evaluation for Educational Achievement (IEA), funding agencies, and the International Study Center (ISC) at Boston College worked together to develop and implement the PIRLS 2001 assessment. This appendix acknowledges the individuals and organizations for their contributions. Given that the development and implementation of PIRLS 2001 has spanned approximately four years and has involved so many people and organizations, this list may not include all who contributed. Any omission is inadvertent. PIRLS 2001 also acknowledges the students, teachers, and school principals who contributed their time and effort to the study. This report would not be possible without them.

Funding Agencies

Funding for the development of PIRLS 2001 was provided by the National Center for Education Statistics of the U.S. Department of Education (NCES), The World Bank, and the participating countries. Valena Plisko, Eugene Owen, Dawn Nelson and Lawrence Ogle of NCES and Vincent Greaney of the

World Bank were instrumental in making PIRLS 2001 possible and for ensuring the quality of the study. Each participating country was responsible for funding national project costs and implementing PIRLS in accordance with the international procedures.

Management and Operations

PIRLS 2001 was conducted under the auspices of the IEA. The study is directed by Ina V.S. Mullis and Michael O. Martin, and managed centrally by the staff of the International Study Center at Boston College, Lynch School of Education. The PIRLS International Study Center worked closely with organizations that were responsible for particular aspects of the study, the PIRLS advisory committees, and representatives of the participating countries.

In the IEA Secretariat, Hans Wagemaker was responsible for overseeing fundraising and country participation. Barbara Malak, also of the IEA Secretariat, was responsible for managing the ambitious translation verification effort and for recruiting international quality control monitors. Statistics Canada worked with countries to ensure that the international sampling procedures were followed, adapted the international design to national conditions, documented the national samples, and computed sampling weights. The National Foundation for Educational Research in England and Wales had major responsibility for developing the reading test, including collecting reading passages, developing items and scoring guides, and conducting scoring training. The IEA Data Processing Center was responsible for processing and verifying the data from the 35 countries, and for constructing the international database.

IEA Secretariat

Alejandro Tiana, IEA Chair
 Hans Wagemaker, Executive Director
 Barbara Malak, Manager Membership Relations
 Juriaan Hartenberg, Financial Manager

PIRLS and TIMSS International Study Center at Boston College

Ina V.S. Mullis, Co-Director
 Michael O. Martin, Co-Director
 Eugenio J. Gonzalez,
 Director of Operations and Data Analysis
 Ann Kennedy, PIRLS Project Coordinator
 Cheryl Flaherty, PIRLS Research Associate

 Teresa A. Smith, TIMSS Science Coordinator
 Robert A. Garden,
 TIMSS Mathematics Coordinator
 Steven J. Chrostowski,
 TIMSS Project Coordinator
 Ebru Erberber, TIMSS Research Associate
 Monica Guidi, TIMSS Research Assistant
 Maria José Ramirez, Graduate Assistant
 Alka Arora, Graduate Assistant

 Joseph Galia, Statistician Programmer
 Isaac Li, Statistician Programmer
 José R. Nieto, Publications Manager
 Mario Pita, Data Graphics Specialist
 Betty Hugh, Data Graphics Specialist
 Susan Messner, Data Graphics Specialist

 Marcie Petras, Manager of Office Administration
 Christine Hoage, Manager, Finance
 Rita Holmes, Administrative Coordinator
 Laura Misas, Administrative Coordinator

IEA Data Processing Center

Pierre Foy, Senior Researcher
 Ursula Itzlinger, Senior Researcher
 Juliane Barth, Research Assistant

Statistics Canada

Marc Joncas, Senior Methodologist

National Foundation for Educational Research in England and Wales

Chris Whetton, Assistant Director
 Marian Sainsbury, Principal Research Officer
 Jenny Bradshaw, Senior Research Officer
 Anne Kispal, Senior Research Officer
 Jane Sowerby, Senior Research Officer
 Jenny Phillips, Research Officer

Educational Testing Services

Jay Campbell, PIRLS Reading Coordinator
 Ed Kulick, Psychometric Scaling Consultant
 Matthias von Davier,
 Psychometric Scaling Consultant

Westat

Keith Rust, Sampling Referee

American Institutes for Research

Eugene Johnson, Psychometric Design Consultant

PIRLS Advisory Committees

The PIRLS Reading Development Group (RDG) contributed their invaluable expertise to developing and reviewing the framework and reading test. The RDG also worked with the PIRLS Reading Coordinator, NFER, and ISC staff members to develop the descriptions of achievement at international benchmarks. The PIRLS Questionnaire Development Group (QDG) helped develop the PIRLS questionnaires, including writing items and reviewing drafts of all questionnaires.

PIRLS Reading Development Group

Marilyn Binkley
National Center for Education Statistics
United States

Karl Bluemel
Vienna School Board
Austria

Sue Horner
Qualifications and Curriculum Authority
England

Pirjo Linnakylä
University of Jyväskylä
Finland

Martine Rémond
Institut National de la Recherche Pédagogique
France

William Tunmer
Massey University
New Zealand

Tan See Keen
Ministry of Education
Singapore

PIRLS Questionnaire Development Group

Annette Lafontaine
Université de Liège
Belgium

Michael Marshall
University of British Columbia
Canada

Ivana Prochazkova
Institute for Information on Education
Czech Republic

Monica Rosén
Göteborg University
Sweden

Graham Ruddock
National Foundation for Educational Research
in England and Wales
England

Maurice Walker
Ministry of Education
New Zealand

National Research Coordinators

The PIRLS 2001 National Research Coordinators (NRCs) were responsible for the crucial task of implementing the study in their countries. They participated in every aspect of the work to ensure that the study was of high quality. All the PIRLS 2001 NRCs and their staff members are to be commended for their professionalism and their dedication in conducting all aspects of the project.

Argentina

Lilia Toranzos
Ministerio de Educación

Belize

Rosalind Bradley
Denise Robateau
Belize Teachers' Training College

Bulgaria

Georgi Bishkov
Felyanka Kaftandjieva
University of Sofia

Canada

Francine Jaques
Robert Deschênes
Education Quality & Accountability Office (EQAO)

Louis-Philippe Gaudreault
Jean-Louis Lebel
Ministère de l'Éducation

Michael Marshall
University of British Columbia

Colombia

Martha Rocha
Claudia Saenz
Servicio Nacional de Pruebas

Cyprus

Mary Koutselini
Constantinos Papanastasiou
University of Cyprus

Czech Republic

Iveta Kramplova
Ivana Prochazkova
Institute for Information on Education

England

Liz Twist
National Foundation for Educational Research (NFER)

France

Marc Colmant
Ministère de l'Éducation Nationale

Germany

Wilfried Bos
Knut Schwippert
Eva-Maria Lankes
University of Hamburg

Greece

Georgia Kontogiannopoulou-Polydorides
Costas Basbas
University of Athens

Hong Kong, SAR

Tse Shek-Kam
The University of Hong Kong

Hungary

Péter Vari
Emese Felvégi
*National Institute of Public Education
Centre for Evaluation Studies*

Iceland

Einar Gudmundsson
University of Iceland

Islamic Republic of Iran

Abdol'azim Karimi
Ministry of Education

Israel

Elite Olshtain
Hebrew University

Ruth Zuzovsky
Tel Aviv University

Italy

Gabriella Pavan de Gregorio
*National Institute for the Evaluation
 of the Educational System (CEDE)*

Kuwait

Mansour Hussein
Ministry of Education

Latvia

Ieva Johansone
University of Latvia

Lithuania

Aiste Mackeviciute
Ministry of Education and Science

Republic of Macedonia

Bojana Naceva
Pedagogical Institute of Macedonia

Moldova

Ilie Nasu
Ministry of Education & Science

Morocco

Abdellah Belachkar
Ministère de L'Éducation Nationale

The Netherlands

Mieke Van Diepen
University of Nijmegen

New Zealand

Megan Chamberlain
 Maurice Walker
Ministry of Education

Norway

Finn Egil Tønnessen
 Ragnar Gees Solheim
Stavanger College

Romania

Gabriela Noveanu
Institute for Educational Sciences

Russian Federation

Galina Kovalyova
Institute of General Secondary Education

Scotland

Liz Levy
 Brian Semple
Scottish Office Education and Industry Department

Singapore

Siow-Chin Ng
Ministry of Education

Slovak Republic

Zuzana Lukačková
SPU-National Institute for Education

Slovenia

Marjeta Doupona-Horvat
*Center for IEA Studies
 Educational Research Institute*

Sweden

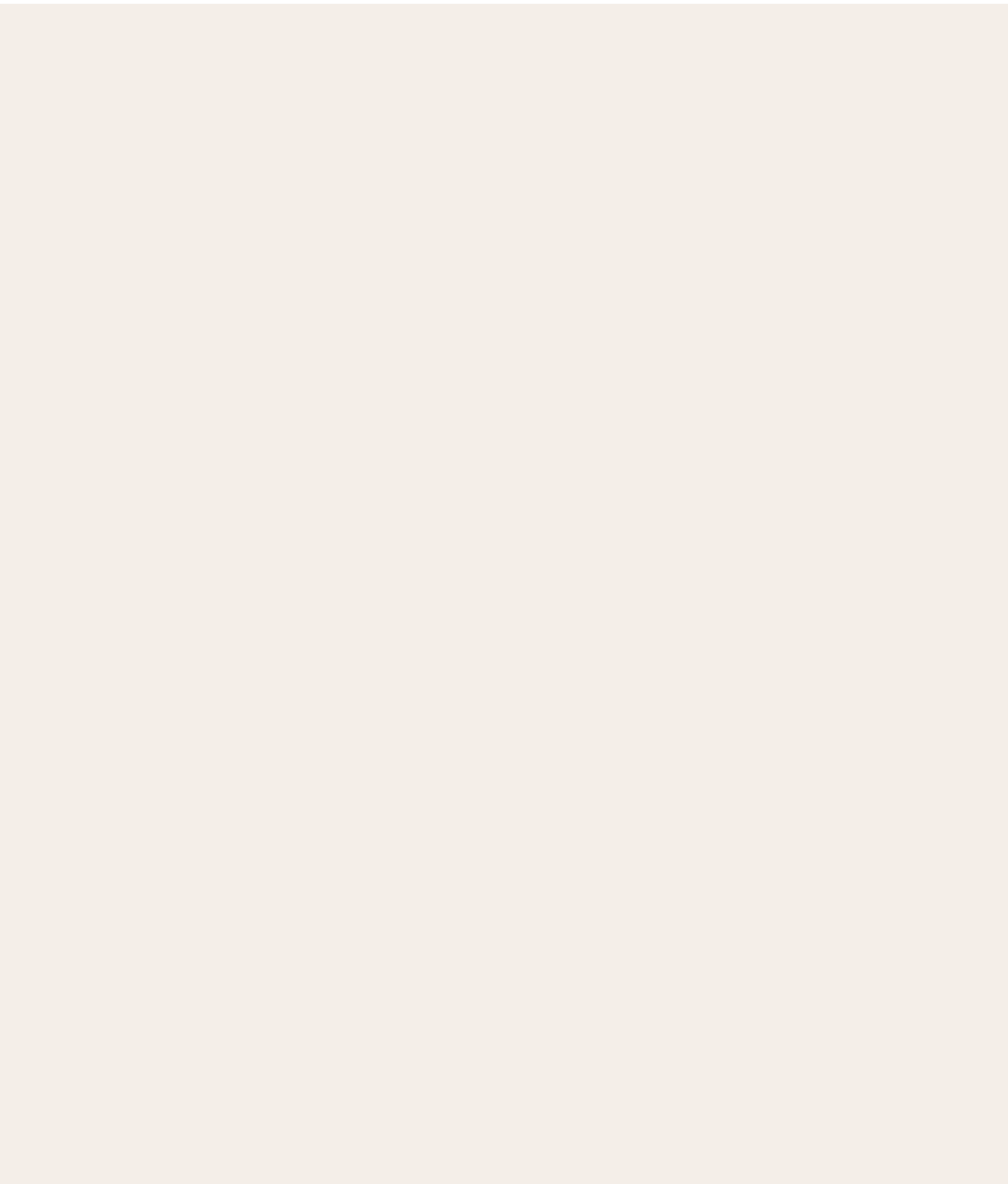
Monica Rosén
Göteborg University

Turkey

Yurdanur Athoğlu
*Educational Research and Development
 Directorate (ERDD)*

United States of America

Laurence Ogle
 Dawn Nelson
National Center for Education Statistics (NCES)



TYPOGRAPHY

Set in Apollo, Frutiger, and Meridien,
designed by Adrian Frutiger.

PHOTOGRAPHS

Getty Images and Corbis

COVER & BOOK DESIGN

José R. Nieto

PRODUCTION COORDINATOR

Susan L. Messner

LAYOUT

Susan L. Messner,
Betty Hugh, and Mario A. Pita