PIRLS

Chapter 3

3

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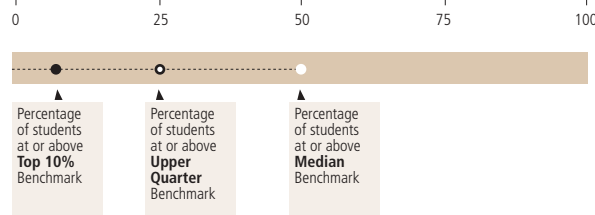
Exhibit 3.1:   **Percentages of Students Reaching PIRLS International Benchmarks in Reading Achievement**   **ISC** | **4th Grade PIRLS 2001**

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

Countries	Percentages of Students Reaching International Benchmarks	Top 10% Benchmark	Upper Quarter Benchmark	Median Benchmark	Lower Quarter Benchmark
†²ª England		24 (1.6)	45 (1.9)	72 (1.6)	90 (1.0)
Bulgaria		21 (1.3)	45 (1.9)	72 (1.9)	91 (1.1)
Sweden		20 (1.1)	47 (1.4)	80 (1.3)	96 (0.5)
† United States		19 (1.3)	41 (2.0)	68 (2.0)	89 (1.2)
New Zealand		17 (1.4)	35 (1.7)	62 (1.9)	84 (1.3)
* ¹ Canada (O,Q)		16 (1.0)	37 (1.3)	69 (1.3)	93 (0.6)
Singapore		15 (1.5)	35 (2.3)	64 (2.3)	85 (1.6)
† Netherlands		14 (1.0)	40 (1.7)	79 (1.5)	98 (0.5)
Italy		14 (1.0)	36 (1.3)	69 (1.5)	92 (0.8)
† Scotland		14 (1.1)	32 (1.8)	62 (1.8)	87 (1.1)
Hungary		13 (0.9)	36 (1.5)	71 (1.2)	94 (0.6)
¹ Lithuania		13 (1.4)	36 (1.7)	71 (1.7)	95 (0.6)
Latvia		12 (1.1)	36 (1.6)	73 (1.5)	96 (0.6)
Germany		12 (0.8)	34 (1.3)	69 (1.2)	93 (0.6)
²ᵇ Israel		11 (0.8)	28 (1.2)	54 (1.4)	79 (1.1)
Romania		11 (1.3)	27 (2.0)	54 (2.1)	81 (1.7)
Czech Republic		10 (0.9)	32 (1.5)	68 (1.5)	93 (0.7)
²ª Greece		10 (0.8)	28 (2.0)	60 (2.2)	89 (1.2)
France		9 (0.9)	26 (1.2)	60 (1.4)	90 (0.9)
²ª Russian Federation		8 (1.0)	27 (2.1)	64 (2.3)	92 (1.6)
Slovak Republic		7 (1.0)	23 (1.4)	59 (1.7)	88 (1.1)
Iceland		7 (0.6)	23 (1.0)	53 (1.0)	85 (0.8)
Hong Kong, SAR		6 (0.7)	26 (1.7)	64 (1.9)	92 (1.1)
Norway		6 (0.9)	19 (1.2)	48 (1.4)	80 (1.4)
Cyprus		6 (0.8)	18 (1.3)	45 (1.6)	77 (1.4)
Slovenia		4 (0.5)	17 (1.0)	48 (1.2)	83 (0.9)
Moldova, Rep. of		4 (0.9)	15 (1.8)	42 (2.5)	79 (1.7)
Macedonia, Rep. of		3 (0.4)	10 (0.9)	28 (1.5)	55 (2.1)
Turkey		2 (0.3)	7 (0.9)	25 (1.6)	58 (1.7)
Argentina		2 (0.4)	5 (0.8)	17 (1.6)	46 (2.5)
Iran, Islamic Rep. of		1 (0.2)	4 (0.5)	16 (1.4)	42 (1.9)
Colombia		1 (0.4)	3 (0.8)	14 (1.5)	45 (2.4)
‡ Morocco		1 (0.9)	3 (1.4)	8 (2.1)	23 (3.0)
Kuwait		0 (0.1)	2 (0.4)	10 (1.1)	36 (2.0)
Belize		0 (0.2)	1 (0.4)	5 (0.6)	16 (1.3)
* Ontario (Canada)		19 (1.4)	40 (1.8)	70 (1.6)	92 (0.8)
* Quebec (Canada)		11 (1.0)	31 (1.8)	67 (2.0)	94 (0.8)

0   25   50   75   100

Percentage of students at or above **Top 10%** Benchmark

Percentage of students at or above **Upper Quarter** Benchmark

Percentage of students at or above **Median** Benchmark

Top 10% Benchmark (90th Percentile) = 615
Upper Quarter Benchmark (75th Percentile) = 570
Median Benchmark (50th Percentile) = 510
Lower Quarter Benchmark (25th Percentile) = 435

* 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 Defined 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.

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

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

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%).

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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 world[3] 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

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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 an 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

   ●   an enormous fruit

   C   the fleeing hares

   D   a falling tree

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)		
†2a 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?

   Ⓐ He had always hated mice.

   ● There were too many of them.

   Ⓒ They laughed too loudly.

   Ⓓ They ate all his cheese.

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)				
†²ᵃ 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?

    ✎₁ In a basket

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)				
†²ᵃ 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

Purpose: Acquire and Use Information

1 Point: Full Credit Sample Response and Results

3.   Why do the puffins come to the island?

Ⓐ   to be rescued

Ⓑ   to look for food

●   to lay eggs

Ⓓ   to learn to fly

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)
†2a 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
- (●)   Altenburg
- (D)   Riverside Valley Park

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

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)
†²ᵃ 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?

Yes, because he helped the hare understand what happened.

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
Romania 77 (1.8)	International Avg. 51 (0.3)	Sweden 45 (1.5)
[†2a] 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

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

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)
†2a 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

Purpose: Literary Experience

1 Point: Full Credit Sample Response and Results

13.   Which words best describe this story?

    Ⓐ serious and sad

    Ⓑ scary and exciting

    ● funny and clever

    Ⓓ thrilling and mysterious

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

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?

Ⓐ   drowning while landing in the sea

Ⓑ   getting lost in the burrows

Ⓒ   not having enough fish from their parents

●   being run over by cars and trucks

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

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?

1 _____ $9 _____

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)
†2a 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

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 1. children's bikes _____

✎₁ 2. _____

Percentage of Students Obtaining at Least Partial Credit

Country Average Significantly Higher than International Average	At Least 1 Point	Only 1 Point	No Statistically Significant Difference Between Country Average and International Average	At Least 1 Point	Only 1 Point	Country Average Significantly Lower than International Average	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)
[1] 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)						
[*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. He said, "Never mind, little brother. All of us – even I – sometimes fear things we cannot understand"

2. He smiled kindly

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)
†2a England	61 (2.0)	International Avg.	48 (0.3)	Iran, Islamic Rep. of	22 (1.5)
1 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)				
* 1 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.

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)	2b Israel	40 (2.2)	20 (1.5)
¹ 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)
* ¹ 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

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.

✎   No It took two nights to trick them

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)
†²ª 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)
¹ 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)				

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*   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.

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

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)	¹ Lithuania	45 (2.2)	Norway	28 (1.5)
* ¹ 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?

They are replaced every year and regularly serviced

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)		

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.

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

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)
†2a 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.

PIRLS Reading Scale Score at the 90th Percentile   615

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

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.

> 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)
†2a 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

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.

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)
†2a 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

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	At Least 2 Points	Only 2 Points	No Statistically Significant Difference Between Country Average and International Average	At Least 2 Points	Only 2 Points	Country Average Significantly Lower than International Average	At Least 2 Points	Only 2 Points
†2a 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)
* 1 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)
1 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

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.

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

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)

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

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

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] 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)
* [1] 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)	[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)				

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†   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

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.

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)
†2a England	39 (2.0)	2a Russian Federation	23 (2.1)	Moldova, Rep. of	12 (1.5)
1 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)
* 1 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)		

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*   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.