

Chapter 2

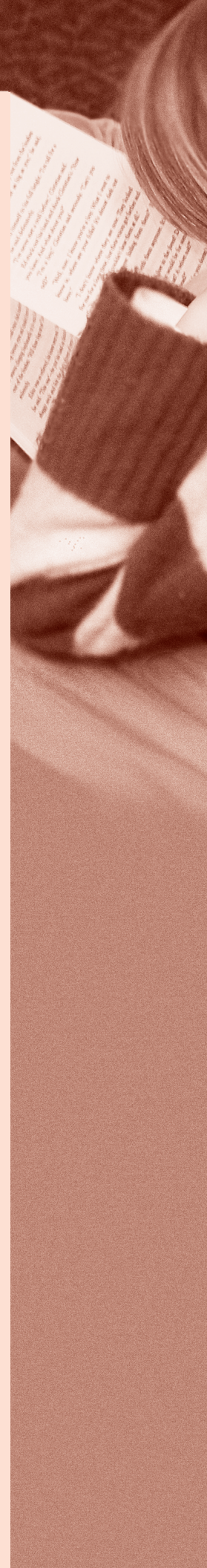
Performance at the PIRLS 2006 International Benchmarks

The PIRLS achievement scale summarizes fourth-grade students' performance in reading a variety of literary and informational texts. Students' achievement was based on their responses to test questions designed to assess a range of comprehension processes (e.g., retrieval, inferencing, integration, and evaluation). To provide descriptions of achievement on the scale in relation to performance on the questions asked, PIRLS uses four points on the scale as international benchmarks. The benchmarks represent the range of performance shown by students internationally (and complement the TIMSS International Benchmarks). For PIRLS 2006, the Advanced International Benchmark is 625, the High International Benchmark is 550, the Intermediate International Benchmark is 475, and the Low International Benchmark is 400. The TIMSS & PIRLS International Study Center worked with the PIRLS Reading Development Group¹ to conduct a detailed scale anchoring analysis to describe reading comprehension at these benchmarks. This chapter describes the types of reading skills and strategies demonstrated by fourth-grade students at each of the international benchmarks together with illustrative items and examples of the answers typically provided by students.

How Does Performance in Countries Compare with the PIRLS 2006 International Benchmarks?

Exhibit 2.1 displays the percentage of students in each participating country and province that reached each international benchmark. The results are presented in descending order according to the percentage of students

1 The members of the PIRLS 2006 Reading Development Group (RDG) are listed in Appendix G.

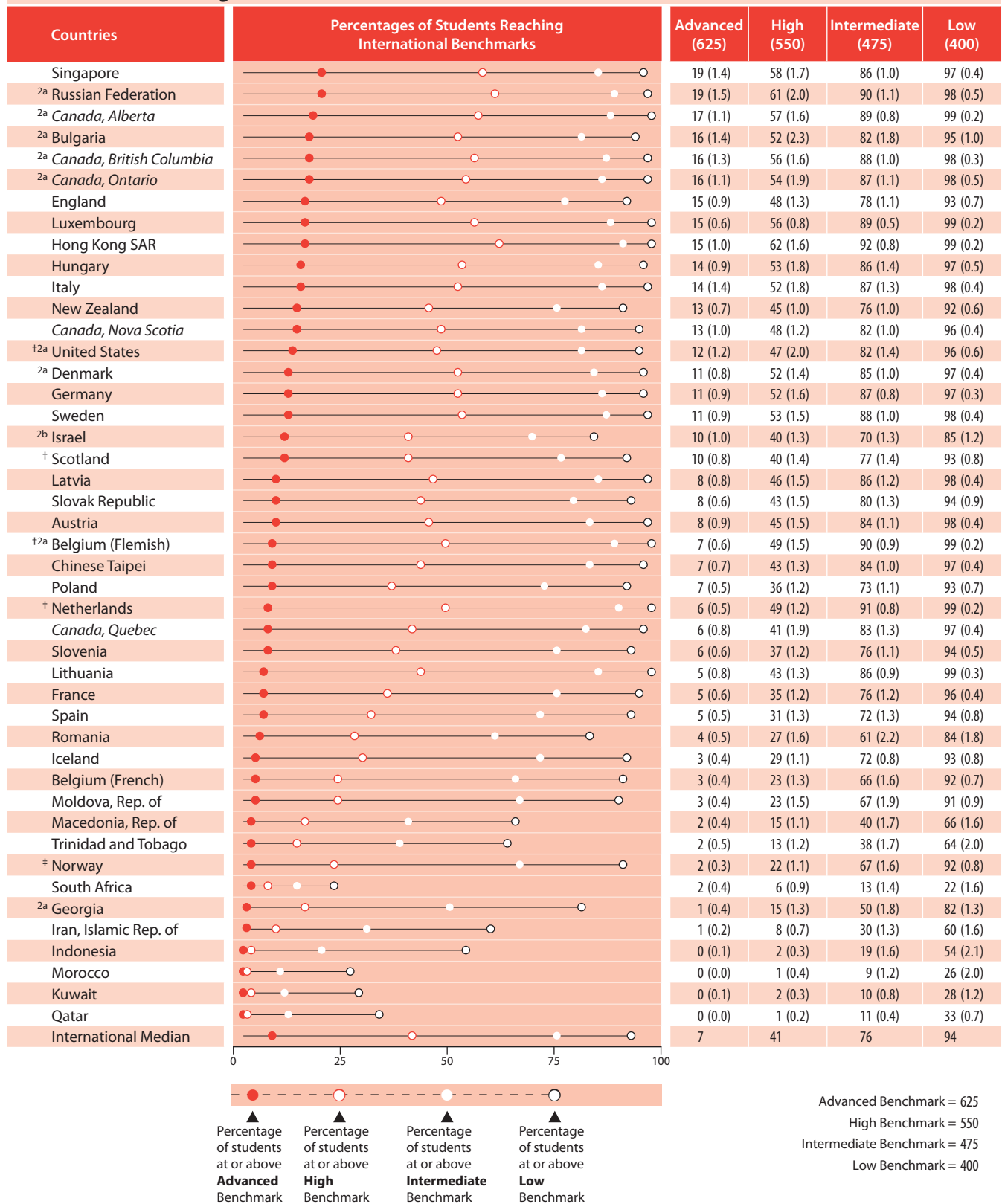


reaching the Advanced International Benchmark (indicated by the red dots, and shown in the column labeled “Advanced”). Although Exhibit 2.1 is organized to draw particular attention to the percentage of high-achieving students in each country and province, it also conveys information about the distribution of middle and low performers. Since students reaching a particular benchmark also reached lower benchmarks, the percentages illustrated graphically, and shown in the table, are cumulative.

In general, the PIRLS 2006 countries with the highest average achievement had greater percentages of students reaching each benchmark, and lower achieving countries had smaller percentages. Among the countries with the highest average achievement, Singapore and the Russian Federation had nearly one fifth of their students (19%) reaching the Advanced International Benchmark, about three fifths (58–61%) reaching the High International Benchmark, 86 to 90 percent reaching the Intermediate International Benchmark, and nearly all (97–98%) reaching the Low International Benchmark.

Bulgaria and England as well as three of the Canadian provinces (Alberta, British Columbia, and Ontario) had similar percentages of students (15–17%) reaching the Advanced International Benchmark, but slightly fewer students reaching one or another of the lower benchmarks. Luxembourg, Hong Kong SAR, Italy, and Hungary had somewhat smaller percentages of students reaching the Advanced International Benchmark (14–15%), but substantial percentages reaching all of the rest of the benchmarks.

As a point of reference, Exhibit 2.1 provides the median for each of the international benchmarks. By definition, half the countries (not including the Canadian provinces) will have a percentage above the median percentage and half below. The median percentage of students reaching the Advanced International Benchmark was 7 percent. For students reaching the high benchmark, the median was 41 percent and for the intermediate benchmark, it was 76 percent. Quite impressively, the median for the low benchmark was 94 percent. That is, half the countries (23 after rounding) had more than 94 percent of their students reaching the low level (indicated graphically by

Exhibit 2.1 Percentages of Students Reaching the PIRLS 2006 International Benchmarks of Reading Achievement**PIRLS 2006**
4th Grade

[†] 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).

^{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.

NOTE: The International Median does not include the results from the Canadian provinces.



the circle to the far right), including five countries with 99 percent, including Luxembourg, Hong Kong SAR, Belgium (Flemish), the Netherlands, and Lithuania. Also, all five of the Canadian provinces were above the median for the Low International Benchmark. Unfortunately, however, several countries had less than half of their students reaching the low benchmark, including South Africa, Morocco, Kuwait, and Qatar.

Considering the countries with average performance significantly below the PIRLS scale average of 500, four of them—Indonesia, Morocco, Kuwait, and Qatar—had very few, if any, students reaching the Advanced International Benchmark, and about 1 to 2 percent reaching the High International Benchmark. Of these four, Indonesia had 19 percent reaching the Intermediate International Benchmark and more than half (54%) reaching the Low International Benchmark. For the other three, however, only about 10 percent reached the Intermediate International Benchmark and from 26–33 percent reached the Low International Benchmark, indicating that from three fourths to two thirds of the fourth-grade students have minimal comprehension skills.

Five other countries with averages lower than 500—Iran, Georgia, South Africa, Trinidad and Tobago, and Macedonia—had from 1 to 2 percent reaching the Advanced International Benchmark, but differed in the percentages reaching the High International Benchmark, with 6 to 8 percent for Iran and South Africa contrasted with 13 to 15 percent for Georgia, Trinidad and Tobago, and Macedonia. The results for these five countries at the Intermediate and Low International Benchmarks reflect differences in their average achievement overall, with Georgia having the highest performance among the five and South Africa the lowest. Half the Georgian fourth-grade students reached the Intermediate International Benchmark and 82 percent reached the Low International Benchmark, whereas the South African results were 13 and 22 percent, respectively.

Exhibit 2.2 presents changes between PIRLS 2001 and PIRLS 2006 in the percentages of fourth-grade students reaching the benchmarks.² At the advanced and high levels, there were the same number of increases

2 For PIRLS 2006, the procedure for identifying International Benchmarks was changed from the PIRLS 2001 method of using percentiles to using points that will not change from cycle to cycle. For comparability in this report, the 2001 data were analyzed using the new method (See Appendix A).

and decreases (seven each). At the lower levels, however, there were more increases than decreases indicating some improvement in basic literacy levels over the past 5 years. More specifically, including the two Canadian provinces, at the intermediate level, nine participants had an increase and three a decrease. Seven participants had an increase in the percentage of students reaching the low benchmark and one had a decrease.

Consistent with significant improvements in their overall average achievement between PIRLS 2001 and PIRLS 2006, fourth-grade students in Singapore, Hong Kong SAR, and Slovenia showed significant increases at all four benchmarks. The Russian Federation, Germany, and the Slovak Republic had increases at all except the Low International Benchmark, whereas Italy had increase at all except the Advanced International Benchmark. The improvement in Hungary was primarily at the Advanced International Benchmark. The Canadian province of Ontario had increases at the two lowest benchmarks, Moldova an increase at the intermediate benchmark, and the United States an increase at the low benchmark. Norway also had an increase at the low benchmark, but this was balanced by decreases at the two highest benchmarks.

For countries with declines overall, Romania had decreases at all four benchmarks. England and Sweden had smaller percentages of students reaching the three highest benchmarks. The Netherlands and Lithuania had decreases at the two highest benchmarks as did Iceland (although it did not have a change in average achievement).

Exhibit 2.2 Trends in Percentages of Students Reaching the PIRLS 2006 International Benchmarks of Reading Achievement in 2001 and 2006 **PIRLS 2006 4th Grade**

Countries	Advanced International Benchmark (625)		High International Benchmark (550)		Intermediate International Benchmark (475)		Low International Benchmark (400)	
	2006 Percent of Students	2001 Percent of Students	2006 Percent of Students	2001 Percent of Students	2006 Percent of Students	2001 Percent of Students	2006 Percent of Students	2001 Percent of Students
Singapore	19 (1.4) ▲	12 (1.4)	58 (1.7) ▲	45 (2.4)	86 (1.0) ▲	76 (2.0)	97 (0.4) ▲	90 (1.4)
^{2a} Russian Federation	19 (1.5) ▲	5 (0.9)	61 (2.0) ▲	39 (2.3)	90 (1.1) ▲	80 (1.9)	98 (0.5)	96 (1.2)
^{2a} Bulgaria	16 (1.4)	17 (1.2)	52 (2.3)	54 (1.9)	82 (1.8)	83 (1.6)	95 (1.0)	95 (0.9)
England	15 (0.9) ▼	20 (1.4)	48 (1.3) ▼	54 (1.7)	78 (1.1) ▼	82 (1.2)	93 (0.7)	94 (0.7)
^{2a} Canada, Ontario	15 (1.2)	15 (1.2)	54 (2.0)	50 (1.8)	87 (1.1) ▲	84 (1.3)	98 (0.5) ▲	96 (0.6)
Hong Kong SAR	15 (1.0) ▲	5 (0.6)	62 (1.6) ▲	39 (1.9)	92 (0.8) ▲	81 (1.5)	99 (0.2) ▲	97 (0.6)
Hungary	14 (0.9) ▲	10 (0.9)	53 (1.8)	49 (1.8)	86 (1.4)	85 (1.0)	97 (0.5)	98 (0.3)
Italy	14 (1.4)	11 (0.9)	52 (1.8) ▲	48 (1.4)	87 (1.3) ▲	83 (1.2)	98 (0.4) ▲	97 (0.6)
New Zealand	13 (0.7)	14 (1.2)	45 (1.0)	45 (1.6)	76 (1.0)	74 (1.4)	92 (0.6)	90 (1.0)
^{12a} United States	12 (1.2)	15 (1.1)	47 (2.0)	50 (2.0)	82 (1.4)	80 (1.7)	96 (0.6) ▲	94 (0.7)
Germany	11 (0.9) ▲	9 (0.6)	52 (1.6) ▲	47 (1.3)	87 (0.8) ▲	83 (0.9)	97 (0.3)	97 (0.4)
Sweden	11 (0.9) ▼	15 (1.0)	53 (1.5) ▼	59 (1.4)	88 (1.0) ▼	90 (0.8)	98 (0.4)	98 (0.3)
^{2b} Israel	10 (1.0)	9 (0.7)	40 (1.3)	36 (1.2)	70 (1.3)	67 (1.2)	85 (1.2)	87 (1.0)
[†] Scotland	10 (0.8)	11 (0.9)	40 (1.4)	42 (1.9)	77 (1.4)	75 (1.5)	93 (0.8)	92 (0.9)
Latvia	8 (0.8)	9 (0.9)	46 (1.5)	49 (2.0)	86 (1.2)	87 (0.9)	98 (0.4)	99 (0.4)
Slovak Republic	8 (0.6) ▲	5 (0.8)	43 (1.5) ▲	34 (1.7)	80 (1.3) ▲	76 (1.5)	94 (0.9)	94 (0.8)
[†] Netherlands	6 (0.5) ▼	10 (0.9)	49 (1.2) ▼	54 (1.8)	91 (0.8)	92 (1.0)	99 (0.2)	99 (0.3)
Canada, Quebec	6 (0.8)	8 (0.7)	41 (1.9)	43 (2.0)	83 (1.3)	84 (1.5)	97 (0.4)	98 (0.4)
Slovenia	6 (0.6) ▲	3 (0.4)	37 (1.2) ▲	25 (1.1)	76 (1.1) ▲	67 (1.2)	94 (0.5) ▲	91 (0.6)
Lithuania	5 (0.8) ▼	9 (1.0)	43 (1.3) ▼	48 (1.8)	86 (0.9)	85 (1.2)	99 (0.3)	98 (0.4)
France	5 (0.6)	7 (0.8)	35 (1.2)	37 (1.4)	76 (1.2)	77 (1.2)	96 (0.4)	95 (0.6)
Romania	4 (0.5) ▼	9 (1.2)	27 (1.6) ▼	35 (2.2)	61 (2.2) ▼	69 (2.0)	84 (1.8) ▼	88 (1.3)
Iceland	3 (0.4) ▼	6 (0.5)	29 (1.1) ▼	32 (0.9)	72 (0.8)	71 (1.1)	93 (0.8)	92 (0.6)
Moldova, Rep. of	3 (0.4)	3 (0.7)	23 (1.5)	22 (2.1)	67 (1.9) ▲	61 (2.1)	91 (0.9)	88 (1.2)
Macedonia, Rep. of	2 (0.4)	2 (0.3)	15 (1.1)	15 (1.1)	40 (1.7)	41 (1.9)	66 (1.6)	67 (2.1)
[‡] Norway	2 (0.3) ▼	4 (0.8)	22 (1.1) ▼	28 (1.5)	67 (1.6)	65 (1.6)	92 (0.8) ▲	88 (0.9)
Iran, Islamic Rep. of	1 (0.2)	0 (0.2)	8 (0.7)	7 (0.8)	30 (1.3)	28 (1.8)	60 (1.6)	56 (2.0)
Morocco	0 (0.0)	1 (0.9)	1 (0.4)	4 (1.6)	9 (1.2)	14 (2.6)	26 (2.0)	33 (3.4)
International Avg.	9 (0.2) ▲	8 (0.2)	40 (0.3) ▲	38 (0.3)	74 (0.3) ▲	72 (0.3)	90 (0.2) ▲	89 (0.2)

▲ 2006 percentage significantly higher

▼ 2006 percentage significantly lower

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.

Trend Note: The primary education systems of the Russian Federation and Slovenia underwent structural changes. Data for Canada, Ontario include only public schools.



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How Were the Benchmark Descriptions Developed?

The TIMSS & PIRLS International Study Center conducted a scale anchoring analysis to develop descriptions of achievement at the PIRLS 2006 international benchmarks. The scale anchoring data provided a basis for describing students' performance at different points on the reading achievement scale in terms of the types of texts they were asked to read, the types of items they were able to answer successfully, and the quality of their answers (for multipoint constructed-response questions). In addition to the data analysis component to identify items that discriminated between successive points on the scale, the process also involved a judgmental component in which the PIRLS 2006 committee of reading experts examined the content of the texts and items and generalized to describe students' comprehension skills and strategies.

For the scale anchoring data analysis, the students' achievement results from all the participating countries and provinces were pooled, so that the benchmark descriptions refer to all students achieving at that level. Thus, in determining performance in relation to the benchmarks, it does not matter what country or province a student is from, only how he or she performed on the test. Considering students' reading achievement scale scores, criteria were applied 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.

For example, a multiple-choice item anchored at the Advanced International Benchmark if at least 65 percent of students scoring at 625 answered the item correctly and fewer than 50 percent of students scoring at the High International Benchmark (550) answered correctly. Similarly, a multiple-choice item anchored at the High International Benchmark if at least 65 percent of students scoring at 550 answered the item correctly and fewer than 50 percent of students scoring at the Intermediate International Benchmark answered it correctly; and so on, for each successively lower benchmark. Since constructed-response questions nearly eliminate guessing, the criterion for the constructed-response items was simply 50 percent at the

particular benchmark, and, for multipoint items, the analysis differentiated between partial-credit and full-credit responses.

There were 126 items in the assessment, about half (64) assessing “literary experience” and half (62) assessing “acquire and use information”. Please see Appendix A for the distribution of items by reading purpose and process category.

About half the PIRLS 2006 items required students to construct their own answers to the questions (with no help from those administering the assessment).³ The constructed-response questions took three different forms:

- ▶ For **1-point items**, responses were scored as **acceptable** if they included all elements required by the questions and were determined to be accurate based on ideas and information in the text.
- ▶ For **2-point items**, responses that were given **full credit** demonstrated complete comprehension by providing appropriate inferences and interpretations consistent with the text and adequate textually-based support if required. Responses 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 **3-point items**, responses were given **full credit** if they demonstrated extensive comprehension by presenting relatively complex, abstract ideas or by providing substantial textual support for inferences and interpretations. Responses were considered **satisfactory** and given 2 points if they 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. **Minimal** responses (1 point) contained some but not all of the required elements.

For students to demonstrate achievement in the reading comprehension process being assessed by multipoint items, usually the response needed to receive full credit. That is, a more literal response to an item requiring interpretation, integration, or evaluation of ideas in the text did provide text-

3 To ensure reliable scoring, PIRLS developed scoring guides for each constructed-response item and conducted training in how to apply the guides. To monitor reliability within countries, across countries, and between the 2001 and 2006 assessments, subsamples of students’ systematic responses were scored independently by more than one reader (see Appendix A).

based information, demonstrating that the student could locate and retrieve information. However, this type of response did not demonstrate that the student was able to interpret, integrate, or evaluate the information in the text. So, even though students providing such literal responses received partial credit, the partial credit responses did not necessarily reflect competence in the comprehension process being assessed.

The sets of items identified by the scale anchoring analysis represented the accomplishments of students reaching each successively higher benchmark, and were used by the PIRLS 2006 Reading Development Group (RDG) to develop the benchmark descriptions. For each benchmark, the work of the RDG involved developing a short description for each anchor item that characterized the reading skills and strategies demonstrated by students answering it successfully (and for multipoint constructed-response questions, according to whether students answered partially or fully). These item-by-item descriptions are found in Appendix E. Then, the RDG summarized students' reading comprehension skills and strategies across the set of items for each benchmark to provide more general statements of achievement.

How Should the Benchmark Descriptions Be Interpreted?

In thinking about the reading demands underlying any assessment question, there is, of course, a substantial interaction between the sophistication of the comprehension required by the question, the length and complexity of the text, and the likelihood of the students' familiarity with the reading content and structure. Although the PIRLS 2006 texts were constrained by the assessment situation, they still varied in features such as length, syntactic complexity, vocabulary, abstractness of ideas, and organizational structure. In particular, because of the differences between the literary and informational texts, the benchmark descriptions are presented separately for the two reading purposes. It also should be kept in mind that the descriptions of reading skills and strategies at the PIRLS 2006 benchmarks were developed on the basis of these texts, and are intended to explain differences in achievement on the

PIRLS 2006 assessment. The descriptions do not purport to encompass all reading situations encountered by fourth-grade students.

The PIRLS 2006 assessment was based on 10 different texts, 5 for the literary purpose and 5 for the informational purpose. Exhibit 2.3 summarizes the characteristics of the literary and informational texts. To support the variety of questions necessary to cover the range of comprehension processes (e.g., locating and retrieving, integrating, evaluating, etc.), the passages averaged 760 words in length, with a range from 495 to 872 words. Considering the assessment context, PIRLS 2006 included a variety of text types within the two purposes. Considerable effort was expended by the participating countries to identify a wide selection of appropriate passages, and there was considerable variety in the informational texts. These included a brochure, a biography, a “how to” article about science projects, as well as descriptive articles within the areas of geography and biology.

In reflecting on the reading comprehension processes assessed by PIRLS 2006, it might seem that locating and extracting explicitly stated information would be less difficult than, for example, making interpretations and integrating ideas across a whole text. Also, 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. All texts are not equal, however, and because the PIRLS 2006 texts needed to conform to the assessment situation, they represent a limited view of the universe of texts available to fourth-grade students. It is not the case that interpretive reading tasks are always more difficult than tasks requiring retrieval of explicit information.

For some items, the comprehension processes necessary to answer successfully may vary according to students’ experiences. Understanding vocabulary use may be explicit for one student and require interpretation for another. Nevertheless, the descriptions are based on what the panel believed to be the way the great majority of students would approach the item. Finally, some students scoring below a benchmark may very well know or understand some of the concepts that characterize a higher level. It is

Exhibit 2.3 Description of Texts in PIRLS 2006

PIRLS 2006
4th Grade

Literary Texts

The literary texts were complete short stories or episodes accompanied by supportive illustrations. The five stories covered a variety of settings, with each having essentially two main characters and a plot with one or two central events.

Informational Texts

The five informational texts covered a variety of content, including scientific, geographical, biographical, and procedural material. The texts were structured sequentially or by topic. As well as prose, each text included organizational and presentational features such as diagrams, maps, illustrations, photographs, text boxes, lists, or tables.

important to consider performance on the individual items and clusters of items in developing a profile of student achievement in each country.

The remainder of this chapter describes fourth-grade students' reading achievement at each of the four benchmarks, beginning with the Low International Benchmark and working up the scale to the Advanced International Benchmark. The description of achievement at each higher benchmark is cumulative, building on the description of achievement demonstrated by students at the next lower benchmark. Students reaching a particular benchmark demonstrated the comprehension skills and strategies characterizing that benchmark as well as the competencies of students at any lower benchmarks. For each benchmark, there is a description of the comprehension skills and strategies demonstrated by the students on PIRLS 2006, as well as four example items (two literary and two informational) with results from each participating country or province.

Achievement at the PIRLS 2006 Low International Benchmark

Exhibit 2.4 describes the reading skills and strategies demonstrated by fourth-grade students reaching level 400 on the PIRLS reading achievement scale. Essentially, these students displayed basic reading skills. They were able to recognize, locate, and reproduce explicitly stated details from the informational texts, particularly if the details were close to the beginning of the text. Students reaching the Low International Benchmark also demonstrated success with some items requiring straightforward inferences.

Exhibits 2.5 and 2.6 present two literary examples, both from the “Unbelievable Night” story found in the PIRLS Reader (in the back pocket of the report). Both questions are in the multiple-choice format. The first question, Item 1, about the crocodile’s tail breaking the bedroom door required recognizing an important event in the story. This question was relatively easy for students, with 77 percent answering correctly, on average, across the participating countries. (The Canadian provinces were not included in calculating the international average.) More than 90 percent of students answered correctly in the Russian Federation, Hong Kong SAR, and Chinese

Taipei. The second question, Item 2, directed students to the end of the story and required a straightforward inference. Thus, it was somewhat more difficult, but still answered correctly by 69 percent of the students, on average.

Exhibits 2.7 and 2.8 present two informational examples, both from the article about Antarctica found in Appendix D. The first question, Item 3, asked students to write their answer to the question about where Antarctica could be found on the globe. The information was explicitly stated in the first paragraph (the bottom) or could be found on the map (South Pole). In many participating countries and all the provinces, 90 percent or more of the students answered correctly. The second example, Item 4, also in the constructed-response format, was more demanding, although students at the low level provided only one text-based reason (of two required) for not visiting Antarctica between April and September. As can be seen from Exhibit 2.8, on average internationally, just over half the students (55%) provided only one reason, far fewer than provided at least one reason (those providing one reason plus those providing two reasons). Internationally on average, 78 percent of the students provided at least one reason.

Exhibit 2.4	Description of the PIRLS 2006 Low International Benchmark of Reading Achievement	PIRLS 2006 4th Grade
Low International Benchmark		400
Literary		
When reading literary texts, students can:		
• Recognize an explicitly stated detail • Locate a specified part of the story and make an inference clearly suggested by the text		
Informational		
When reading information texts, students can:		
• Locate and reproduce explicitly stated information that is readily accessible, for example, at the beginning of the text or in a clearly defined section • Begin to provide a straightforward inference clearly suggested by the text		

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Exhibit 2.5 PIRLS 2006 Low International Benchmark – Item 1 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience		Country	Percent Correct
1 Point: Sample Correct Response			
7. How did the bedroom door get broken?		2a Russian Federation	96 (0.8) ●
		Hong Kong SAR	93 (0.8) ●
		Chinese Taipei	92 (1.0) ●
		2a Bulgaria	89 (1.5) ●
		Slovenia	88 (1.1) ●
		2a Denmark	87 (1.1) ●
		Sweden	87 (1.5) ●
		Lithuania	85 (1.6) ●
		France	85 (1.2) ●
		† Netherlands	85 (1.8) ●
		Singapore	85 (1.0) ●
		2a Canada, Alberta	84 (1.4) ●
		Germany	83 (1.2) ●
		†2a United States	83 (1.3) ●
		Belgium (French)	82 (1.2) ●
		Hungary	82 (1.6) ●
		2a Georgia	82 (1.4) ●
		Latvia	82 (2.0) ●
		Poland	82 (1.4) ●
		Spain	82 (1.5) ●
		Canada, Quebec	81 (1.8) ●
		2a Canada, British Columbia	81 (1.3) ●
		Iceland	81 (1.5) ●
		†2a Belgium (Flemish)	81 (1.6) ●
		Austria	79 (1.5)
		‡ Norway	79 (2.2)
		England	78 (1.6)
		Romania	78 (2.2)
		Luxembourg	78 (1.2)
		† Scotland	77 (2.0)
		International Avg.	77 (0.3)
		Canada, Nova Scotia	77 (1.7)
		Moldova, Rep. of	75 (1.9)
		2a Canada, Ontario	75 (2.3)
		Slovak Republic	75 (1.5)
		2b Israel	75 (1.6)
		Italy	74 (1.8)
		New Zealand	73 (1.5) ▼
		Macedonia, Rep. of	67 (2.3) ▼
		Trinidad and Tobago	63 (1.8) ▼
		Qatar	62 (1.4) ▼
		Iran, Islamic Rep. of	60 (2.3) ▼
		Indonesia	60 (2.1) ▼
		Kuwait	49 (2.0) ▼
		Morocco	48 (2.6) ▼
		South Africa	40 (1.1) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students answering correctly significantly higher than international average ●

Percentage of students answering correctly significantly lower than international average ▼

- † 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).
- 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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.6 PIRLS 2006 Low International Benchmark – Item 2 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

1 Point: Sample Correct Response

9. At the end of the story, how did Anina feel toward the flamingos?

- ☐ (A) guilty
- ☐ (B) cautious
- ☒ grateful
- ☐ (D) annoyed

Country

Percent
Correct

Chinese Taipei	90 (1.2) ▲
Latvia	88 (1.5) ▲
Luxembourg	88 (0.9) ▲
^{2a} Russian Federation	87 (1.4) ▲
Sweden	86 (1.5) ▲
^{2a} Bulgaria	85 (1.9) ▲
Hong Kong SAR	85 (1.5) ▲
Lithuania	84 (1.9) ▲
Germany	84 (1.3) ▲
Iceland	83 (1.4) ▲
Slovenia	83 (1.4) ▲
Slovak Republic	83 (1.6) ▲
Poland	82 (1.8) ▲
Austria	81 (1.4) ▲
^{2a} Denmark	81 (1.5) ▲
Spain	80 (1.7) ▲
[†] Netherlands	79 (2.0) ▲
Singapore	79 (1.3) ▲
Indonesia	79 (1.6) ▲
Macedonia, Rep. of	75 (1.8) ▲
Romania	74 (2.2) ▲
^{†2a} Belgium (Flemish)	74 (1.7) ▲
^{2b} Israel	72 (2.0) ▼
Moldova, Rep. of	72 (1.8) ▼
^{2a} Georgia	70 (2.6) ▼
Italy	70 (2.3) ▼
International Avg.	69 (0.3)
Hungary	65 (1.8) ▼
^{2a} Canada, Alberta	63 (1.7) ▼
^{2a} Canada, British Columbia	63 (2.0) ▼
England	61 (1.9) ▼
^{†2a} United States	61 (1.8) ▼
Canada, Quebec	60 (2.3) ▼
^{2a} Canada, Ontario	59 (2.5) ▼
New Zealand	58 (1.5) ▼
Canada, Nova Scotia	58 (1.8) ▼
Iran, Islamic Rep. of	55 (1.9) ▼
[‡] Norway	55 (2.4) ▼
[†] Scotland	54 (1.9) ▼
Trinidad and Tobago	47 (1.9) ▼
Belgium (French)	41 (1.7) ▼
Qatar	37 (1.5) ▼
France	37 (1.8) ▼
Morocco	34 (2.3) ▼
South Africa	31 (1.2) ▼
Kuwait	31 (2.0) ▼

Percentage of students answering correctly
significantly higher than international average ▲Percentage of students answering correctly
significantly lower than international average ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

[†] 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).^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.7 PIRLS 2006 Low International Benchmark – Item 3 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

1 Point: Sample Full-Credit Response

1. Where can you find Antarctica on a globe?



the bottom

Country	Percent Full Credit	
Luxembourg	96 (0.7)	●
^{†2a} United States	94 (0.8)	●
France	94 (1.1)	●
Singapore	94 (0.8)	●
[†] Scotland	93 (1.0)	●
England	93 (1.0)	●
^{2a} Canada, Alberta	92 (1.0)	●
Canada, Quebec	92 (1.2)	●
^{†2a} Belgium (Flemish)	92 (1.0)	●
Austria	92 (1.1)	●
Germany	92 (1.1)	●
Slovenia	92 (0.9)	●
^{2a} Canada, Ontario	92 (1.2)	●
Poland	91 (1.1)	●
Canada, Nova Scotia	91 (1.2)	●
New Zealand	91 (0.8)	●
^{2a} Russian Federation	90 (1.2)	●
[†] Netherlands	90 (1.1)	●
Lithuania	90 (1.1)	●
^{2a} Canada, British Columbia	90 (1.3)	●
Italy	89 (1.6)	●
Slovak Republic	89 (1.4)	●
Sweden	89 (1.3)	●
Hong Kong SAR	89 (1.3)	●
[‡] Norway	88 (1.6)	●
Hungary	88 (1.6)	●
Latvia	88 (1.5)	●
Chinese Taipei	86 (1.2)	●
^{2a} Bulgaria	86 (1.6)	●
Iceland	84 (1.3)	●
^{2b} Israel	84 (1.3)	●
^{2a} Georgia	84 (1.7)	●
^{2a} Denmark	83 (1.4)	●
Spain	83 (1.8)	●
Moldova, Rep. of	83 (1.8)	●
International Avg.	81 (0.2)	
Belgium (French)	77 (1.7)	▼
Romania	75 (2.3)	▼
Trinidad and Tobago	70 (2.0)	▼
Macedonia, Rep. of	67 (2.2)	▼
Qatar	62 (1.1)	▼
Indonesia	57 (2.3)	▼
Morocco	53 (2.3)	▼
Kuwait	44 (2.2)	▼
Iran, Islamic Rep. of	43 (2.0)	▼
South Africa	34 (1.3)	▼

Percentage of students receiving full credit significantly higher than international average ●

Percentage of students receiving full credit significantly lower than international average ▼

- [†] 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).
- ^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



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Exhibit 2.8 PIRLS 2006 Low International Benchmark – Item 4 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

1 out of 2 Points: Sample Partial-Credit Response

4. Think about what the article says about Antarctica. Give **two** reasons why most people who visit Antarctica choose **not** to go there between April and September.

1. the temperature can be as cold as -89°C .

2.

Country	Percent at Least 1 Point	Percent Only 1 Point
Luxembourg	95 (0.6) ●	53 (1.2)
^{2a} Canada, Alberta	93 (1.1) ●	62 (1.9)
^{2a} Canada, Ontario	92 (1.2) ●	62 (2.3)
Singapore	92 (0.8) ●	59 (1.5)
^{†2a} Belgium (Flemish)	92 (1.1) ●	70 (1.7)
Chinese Taipei	92 (1.0) ●	65 (1.7)
^{†2a} United States	92 (1.0) ●	68 (1.8)
Hong Kong SAR	92 (0.9) ●	52 (1.9)
^{2a} Canada, British Columbia	92 (1.1) ●	66 (2.0)
[†] Netherlands	92 (1.4) ●	63 (2.0)
Canada, Quebec	91 (1.3) ●	62 (2.7)
Sweden	90 (1.3) ●	58 (2.0)
Canada, Nova Scotia	90 (1.2) ●	61 (1.8)
Germany	89 (1.2) ●	61 (1.7)
England	89 (1.2) ●	61 (2.0)
Austria	89 (1.3) ●	58 (1.7)
Italy	89 (1.4) ●	53 (2.2)
New Zealand	88 (1.0) ●	59 (1.6)
Latvia	87 (1.5) ●	57 (2.1)
[†] Scotland	87 (1.6) ●	62 (1.9)
^{2a} Denmark	86 (1.4) ●	63 (2.0)
France	85 (1.4) ●	64 (1.8)
Lithuania	85 (1.3) ●	63 (1.7)
Iceland	85 (1.3) ●	65 (1.5)
Slovak Republic	84 (1.2) ●	64 (1.9)
Belgium (French)	84 (1.4) ●	67 (1.9)
^{2a} Bulgaria	83 (1.9) ●	46 (2.2)
Hungary	83 (1.8) ●	63 (1.9)
Moldova, Rep. of	79 (1.6)	59 (2.0)
Spain	79 (1.8)	55 (1.9)
^{2a} Russian Federation	79 (2.0)	49 (2.4)
International Avg.	78 (0.3)	55 (0.3)
Poland	78 (1.6)	55 (1.8)
[‡] Norway	77 (2.1)	56 (2.0)
^{2b} Israel	76 (1.7)	52 (1.9)
Romania	76 (2.1)	49 (2.4)
Macedonia, Rep. of	73 (1.7) ▼	56 (2.2)
^{2a} Georgia	73 (1.9) ▼	55 (2.4)
Slovenia	70 (1.5) ▼	53 (1.5)
Trinidad and Tobago	68 (1.9) ▼	55 (1.9)
Indonesia	59 (1.9) ▼	44 (1.6)
Iran, Islamic Rep. of	54 (2.4) ▼	44 (2.1)
Qatar	46 (1.4) ▼	40 (1.4)
Morocco	44 (2.5) ▼	39 (2.4)
South Africa	41 (1.7) ▼	34 (1.4)
Kuwait	33 (2.2) ▼	26 (2.0)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving at least 1 point significantly higher than international average ●

Percentage of students receiving at least 1 point significantly lower than international average ▼

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



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Achievement at the PIRLS 2006 Intermediate International Benchmark

As described in Exhibit 2.9, students at the Intermediate International Benchmark demonstrated some reading proficiency, especially with the stories. They were able to understand the plots at a literal level, and also to make some inferences and connections across the texts. In the informational texts, they were able to use text organizers (headings, illustrations, etc.) to find information beyond the initial parts of the texts, and to provide two pieces of information in answering a question.

Exhibit 2.10 and 2.11 present the two literary examples, Items 5 and 6, respectively. Both are in the constructed-response format. The first literary example is from the “Little Lump of Clay” story found in Appendix D. On average, about two thirds of the fourth-grade students internationally were able to make an inference and briefly describe the aims/reactions of the lump of clay. Similarly, about two thirds were able to order the sequence of events in the “Unbelievable Night” story.

The first informational example is from the “Searching for Food” text in the PIRLS Reader, which was a three-part text about conducting science projects. Shown in Exhibit 2.12 and labeled Item 7, the question about the reason for putting the apple by the ants’ nest was in the multiple-choice format. However, it did require students to make an inference based on several pieces of information provided in the text. Austrian and German fourth-grade students had the highest percentages of correct responses (89%), and the average across countries was 72 percent. Presented in Exhibit 2.13, the second informational example, Item 8, is another question based on the “Antarctica” article. Students at the intermediate level made the necessary inferences and provided two pieces of information (of three required) about how penguins keep warm. On average internationally, only 22 percent of students provided two (of three) reasons. However, this item was relatively easy for students in some countries. For example, in the Russian Federation and Hong Kong SAR, 91 to 92 percent of the students provided two—or three—reasons.

Exhibit 2.9	Description of the PIRLS 2006 Intermediate International Benchmark of Reading Achievement	PIRLS 2006 4th Grade
	Intermediate International Benchmark	475
	Literary When reading literary texts, students can: • Identify central events, plot sequences, and relevant story details • Make straightforward inferences about the attributes, feelings, and motivations of main characters • Begin to make connections across parts of the text	
	Informational When reading information texts, students can: • Locate and reproduce one or two pieces of information from within the text • Make straightforward inferences to provide information from a single part of the text • Use subheadings, textboxes, and illustrations to locate parts of the text	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Exhibit 2.10 PIRLS 2006 Intermediate International Benchmark – Item 5 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

1 Point: Sample Full-Credit Response

3. At the beginning of the story, what did the lump of clay wish for?



the lump of clay
wished to be used

Country	Percent Full Credit
Hungary	89 (1.4) ●
^{2a} Canada, British Columbia	88 (1.4) ●
^{2a} Denmark	87 (1.5) ●
Germany	87 (1.4) ●
[†] Netherlands	86 (1.4) ●
Luxembourg	86 (1.0) ●
Chinese Taipei	86 (1.2) ●
^{2a} Canada, Alberta	85 (1.4) ●
Sweden	85 (1.7) ●
^{2a} Russian Federation	84 (1.6) ●
Lithuania	84 (1.6) ●
^{2a} Canada, Ontario	84 (1.7) ●
Hong Kong SAR	83 (1.5) ●
^{†2a} Belgium (Flemish)	83 (1.4) ●
Canada, Nova Scotia	83 (1.3) ●
Italy	83 (1.6) ●
Austria	82 (1.5) ●
Singapore	82 (1.3) ●
^{2a} Bulgaria	81 (2.1) ●
^{†2a} United States	79 (1.4) ●
[†] Scotland	79 (1.9) ●
Iceland	78 (1.5) ●
Slovak Republic	78 (1.8) ●
New Zealand	78 (1.6) ●
England	78 (1.9) ●
Canada, Quebec	77 (1.9) ●
Latvia	76 (2.2) ●
France	76 (1.6) ●
Slovenia	76 (1.3) ●
Poland	75 (1.9) ●
Belgium (French)	74 (1.8) ●
[‡] Norway	71 (2.4)
Romania	70 (2.4)
International Avg.	68 (0.3)
Spain	65 (1.8)
^{2a} Georgia	64 (2.6)
^{2b} Israel	63 (1.8) ▼
Moldova, Rep. of	56 (1.9) ▼
Macedonia, Rep. of	48 (1.9) ▼
Trinidad and Tobago	47 (2.1) ▼
Iran, Islamic Rep. of	34 (1.7) ▼
Qatar	28 (1.2) ▼
Indonesia	26 (1.6) ▼
Kuwait	19 (1.5) ▼
South Africa	16 (1.6) ▼
Morocco	6 (1.0) ▼

Percentage of students receiving full credit significantly higher than international average ●

Percentage of students receiving full credit significantly lower than international average ▼

- [†] 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).
- ^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



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Exhibit 2.11 PIRLS 2006 Intermediate International Benchmark – Item 6 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

1 Point: Sample Correct Response

5. Put the following sentences in the order in which they happened in the story.

The first one has been done for you.

2 Anina saw the crocodile.

4 The crocodile ate two flamingos.

5 Anina tried to explain the broken door to her parents.

1 Anina started to walk to the bathroom.

3 Anina ran to the bedroom and slammed the door.

Country	Percent Full Credit
^{2a} Russian Federation	84 (1.5) ▲
Luxembourg	84 (1.3) ▲
Hungary	84 (1.7) ▲
^{2a} Denmark	83 (1.4) ▲
Latvia	82 (1.8) ▲
^{2a} Canada, British Columbia	82 (1.7) ▲
Hong Kong SAR	81 (1.7) ▲
^{2a} Bulgaria	81 (2.0) ▲
Germany	81 (1.3) ▲
^{2a} Canada, Alberta	81 (1.4) ▲
^{2a} Canada, Ontario	80 (2.2) ▲
Canada, Quebec	80 (1.7) ▲
[†] Netherlands	79 (1.6) ▲
^{†2a} United States	79 (1.5) ▲
Austria	79 (1.7) ▲
Slovak Republic	78 (1.7) ▲
Italy	78 (1.9) ▲
Sweden	77 (1.9) ▲
Spain	77 (1.8) ▲
Lithuania	77 (1.7) ▲
^{†2a} Belgium (Flemish)	76 (1.5) ▲
Canada, Nova Scotia	76 (1.7) ▲
Chinese Taipei	75 (1.5) ▲
Moldova, Rep. of	74 (2.4) ▲
Poland	73 (1.9) ▲
England	73 (1.6) ▲
France	73 (1.8) ▲
Singapore	73 (1.7) ▲
Iceland	72 (1.7) ▲
[†] Scotland	72 (2.0) ▲
Romania	72 (2.4)
Belgium (French)	71 (1.7) ▲
New Zealand	70 (1.4) ▲
Slovenia	68 (2.0)
^{2b} Israel	67 (2.3)
International Avg.	67 (0.3)
[‡] Norway	60 (2.4) ▼
^{2a} Georgia	54 (2.5) ▼
Macedonia, Rep. of	54 (2.6) ▼
Trinidad and Tobago	50 (2.5) ▼
Iran, Islamic Rep. of	42 (1.9) ▼
Qatar	33 (1.4) ▼
Indonesia	30 (1.9) ▼
Kuwait	29 (1.9) ▼
Morocco	25 (2.4) ▼
South Africa	17 (1.3) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average ▲

Percentage of students receiving full credit significantly lower than international average ▼

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.12 PIRLS 2006 Intermediate International Benchmark – Item 7 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information		Country	Percent Correct
1 Point: Sample Correct Response			
3. Why do you put the apple by the ants' nest? A to block the ants' trail so the ants will make a trail C to confuse the ants D so the ants will scurry around		Austria	89 (1.3)
		Germany	89 (1.2)
		^{†2a} Belgium (Flemish)	88 (1.3)
		Hong Kong SAR	88 (1.1)
		Sweden	88 (1.1)
		Luxembourg	88 (1.0)
		Hungary	86 (1.4)
		Latvia	85 (1.3)
		^{2a} Denmark	85 (1.5)
		[†] Netherlands	84 (1.3)
		^{2a} Russian Federation	84 (1.8)
		Chinese Taipei	83 (1.4)
		^{2a} Canada, Alberta	83 (1.6)
		England	82 (1.4)
		^{2a} Canada, Ontario	82 (1.7)
		[‡] Norway	81 (1.6)
		^{2a} Canada, British Columbia	80 (1.7)
		New Zealand	80 (1.4)
		Lithuania	79 (1.6)
		Canada, Nova Scotia	79 (1.4)
		Iceland	79 (1.4)
		^{†2a} United States	79 (1.4)
		Singapore	79 (1.4)
		^{2a} Bulgaria	78 (1.8)
		Belgium (French)	78 (1.6)
		Slovak Republic	78 (1.5)
		[†] Scotland	77 (2.0)
		Canada, Quebec	77 (1.9)
		Slovenia	76 (1.7)
		France	75 (1.5)
		Italy	75 (1.9)
		Poland	74 (2.0)
		Spain	74 (1.7)
		Romania	74 (2.6)
		International Avg.	72 (0.3)
		Moldova, Rep. of	64 (2.6)
		^{2a} Georgia	62 (2.6)
		^{2b} Israel	61 (1.8)
		Macedonia, Rep. of	60 (2.3)
		Trinidad and Tobago	56 (2.5)
		Iran, Islamic Rep. of	54 (1.8)
		Indonesia	53 (2.0)
		Kuwait	36 (1.9)
		Morocco	36 (2.6)
		South Africa	36 (1.3)
		Qatar	26 (1.3)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students answering correctly significantly higher than international average ●

Percentage of students answering correctly significantly lower than international average ▼

- [†] 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).
- ^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



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Exhibit 2.13 PIRLS 2006 Intermediate International Benchmark – Item 8 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

2 of 3 Points: Sample Partial-Credit Response

7. Give **three** ways penguins are able to keep warm in Antarctica.

1. They have many feathers which overlap
2. and a thick layer of fat
3. _____

Country	Percent at Least 2 Points	Percent Only 2 Points
^{2a} Russian Federation	92 (1.2) ●	11 (1.3)
Hong Kong SAR	91 (1.1) ●	9 (1.0)
Singapore	86 (0.9) ●	18 (1.3)
Chinese Taipei	84 (1.3) ●	10 (1.1)
^{2a} Canada, Alberta	84 (1.4) ●	23 (1.4)
Sweden	84 (1.4) ●	29 (1.9)
Latvia	84 (1.9) ●	17 (1.6)
^{†2a} Belgium (Flemish)	83 (1.4) ●	29 (1.6)
^{2a} Canada, Ontario	83 (1.7) ●	22 (2.3)
^{2a} Canada, British Columbia	83 (1.6) ●	22 (1.8)
[†] Netherlands	82 (1.9) ●	37 (1.7)
^{2a} Bulgaria	81 (2.3) ●	19 (1.8)
Luxembourg	81 (1.1) ●	33 (1.5)
Canada, Nova Scotia	80 (1.4) ●	22 (1.5)
Lithuania	79 (1.7) ●	30 (1.9)
Slovak Republic	78 (1.6) ●	22 (1.3)
^{†2a} United States	76 (1.8) ●	24 (1.5)
Hungary	75 (2.0) ●	26 (1.6)
Poland	75 (1.9) ●	15 (1.5)
Germany	75 (1.7) ●	35 (1.7)
Canada, Quebec	75 (2.1) ●	28 (2.0)
Slovenia	74 (1.7) ●	24 (1.5)
Italy	74 (2.1) ●	19 (1.6)
England	74 (1.9) ●	24 (1.6)
[†] Scotland	73 (2.4) ●	23 (1.6)
New Zealand	73 (1.3) ●	22 (1.3)
Austria	73 (1.8) ●	27 (1.7)
^{2b} Israel	71 (1.8) ●	20 (1.4)
France	70 (2.2)	13 (1.0)
Spain	69 (2.0)	33 (1.6)
International Avg.	67 (0.3)	22 (0.2)
Moldova, Rep. of	67 (2.4)	33 (2.0)
^{2a} Denmark	65 (1.9)	28 (1.8)
Iceland	64 (1.5) ▼	16 (1.4)
Romania	63 (2.5)	21 (1.8)
^{2a} Georgia	63 (2.0) ▼	29 (1.7)
Belgium (French)	62 (2.2) ▼	26 (1.6)
Macedonia, Rep. of	60 (2.1) ▼	21 (1.5)
[‡] Norway	59 (1.8) ▼	27 (2.3)
Trinidad and Tobago	44 (2.3) ▼	18 (1.8)
Indonesia	39 (2.1) ▼	19 (1.6)
Iran, Islamic Rep. of	38 (1.8) ▼	17 (1.5)
Qatar	33 (1.3) ▼	13 (0.9)
Kuwait	25 (1.7) ▼	9 (1.0)
Morocco	21 (2.0) ▼	7 (1.2)
South Africa	20 (1.5) ▼	7 (0.7)

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving at least 2 points significantly higher than international average ●

Percentage of students receiving at least 2 points significantly lower than international average ▼

[†] 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).^{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.

NOTE: The International Average does not include the results from the Canadian provinces.

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Achievement at the PIRLS 2006 High International Benchmark

Exhibit 2.14 describes performance at the High International Benchmark. Students reaching this level were competent readers. For example, based on the literary texts included in PIRLS 2006, they could retrieve significant details embedded across the text and provide text-based support for inferences. They could use organizational features to navigate through the informational texts, and make inferences and connections. At this level, students recognized main ideas, some textual features and elements, and were beginning to integrate ideas and information across texts.

Exhibit 2.15 contains Item 9, a literary example from the “Little Lump of Clay” story. This item demonstrates that students at this level were able to recognize the idea of personification. Internationally on average, 55 percent of the students answered correctly. The fourth-grade students in the Netherlands performed the best, with 84 percent answering correctly. Exhibit 2.16, Item 10, is from the “Unbelievable Night” story. This question about two ways the magazine helped Anina illustrates students’ achievement at the high level, in providing two pieces of text-based support (of two required). This question was difficult for students in general, with only 41 percent giving two ways, on average internationally.

Exhibit 2.17 contains Example Item 11, which is based on the “Antarctica” article. The results indicate that students at the high level were able to use organizational features such as section headings. On average, 57 percent of the students internationally were able to locate the section with the information about how thick the ice is. The high achievers on this question were the Russian Federation, Sweden, and Luxembourg with 83 to 84 percent of the students answering correctly. Example Item 12 in Exhibit 2.18 is from the “Searching for Food” science projects. It required students to integrate information within the section about the pill bugs project, make an inference about the point of the experiment, and write their answer. Similar to the results for other items exemplifying this level, 55 percent of the students, on average internationally, provided answers receiving full credit. The Singaporean fourth-grade students were by far the highest achievers on this question with 83 percent receiving full credit.

Exhibit 2.14 **Description of the PIRLS 2006 High International Benchmark of Reading Achievement** **PIRLS 2006**
4th Grade

High International Benchmark

550

Literary

When reading literary texts, students can:

- Locate relevant episodes and distinguish significant details embedded across the text
- Make inferences to explain relationships between intentions, actions, events, and feelings, and give text-based support
- Recognize the use of some textual features (e.g., figurative language, an abstract message)
- Begin to interpret and integrate story events and character actions across the text

Informational

When reading information texts, students can:

- Recognize and use a variety of organizational features to locate and distinguish relevant information
- Make inferences based on abstract or embedded information
- Integrate information across a text to recognize main ideas and provide explanations
- Compare and evaluate parts of a text to give a preference and a reason for it
- Begin to understand textual elements, such as simple metaphors and author’s point of view

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Exhibit 2.15 PIRLS 2006 High International Benchmark – Item 9 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

1 Point: Sample Correct Response

12. The author of the story writes about the lump of clay as if it were a person. What is the author trying to make you imagine?

- (A) what it is like in the rain
- (B) how a lump of clay might feel
- (C) what it is like to work with clay
- (D) how it feels to make something

Country	Percent Correct	
[†] Netherlands	84 (1.3)	●
^{†2a} Belgium (Flemish)	80 (1.4)	●
England	77 (1.5)	●
^{2a} Canada, British Columbia	77 (1.7)	●
^{2a} Canada, Alberta	76 (1.6)	●
^{2a} Canada, Ontario	75 (1.8)	●
Hungary	75 (1.9)	●
Canada, Nova Scotia	74 (1.7)	●
^{†2a} United States	71 (1.8)	●
Lithuania	71 (1.8)	●
[†] Scotland	70 (2.1)	●
Singapore	70 (1.6)	●
Sweden	69 (2.0)	●
New Zealand	68 (1.6)	●
Slovak Republic	66 (1.8)	●
Poland	66 (1.5)	●
Latvia	63 (2.4)	●
Germany	62 (2.0)	●
Italy	62 (2.0)	●
[‡] Norway	59 (2.7)	●
Chinese Taipei	59 (1.8)	●
Luxembourg	59 (1.5)	●
^{2a} Russian Federation	58 (1.7)	●
France	58 (1.9)	●
^{2a} Denmark	58 (1.9)	●
^{2b} Israel	58 (2.0)	●
Belgium (French)	58 (1.9)	●
Hong Kong SAR	57 (1.7)	●
Iceland	57 (1.9)	●
Canada, Quebec	56 (2.2)	●
Slovenia	56 (1.7)	●
International Avg.	55 (0.3)	
Romania	54 (1.9)	●
Moldova, Rep. of	51 (2.5)	●
Spain	48 (2.0)	▼
Austria	47 (1.7)	▼
^{2a} Bulgaria	42 (2.5)	▼
^{2a} Georgia	39 (2.9)	▼
Trinidad and Tobago	38 (1.9)	▼
Macedonia, Rep. of	36 (1.8)	▼
Iran, Islamic Rep. of	34 (1.7)	▼
South Africa	24 (1.4)	▼
Qatar	24 (1.3)	▼
Morocco	20 (1.7)	▼
Kuwait	20 (1.6)	▼
Indonesia	17 (1.5)	▼

Percentage of students answering correctly significantly higher than international average ●

Percentage of students answering correctly significantly lower than international average ▼

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.16 PIRLS 2006 High International Benchmark – Item 10 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

2 Points: Sample Full-Credit Response

8. How did the magazine help Anina? Write **two** ways.

- ① 1. The magazine help Anina to tell where the crocodile came from.
- ② 2. It help Anina to know what the crocodile would do when it was going to attack.

Country	Percent Full Credit
^{2a} Canada, Ontario	66 (2.2) ▲
Hong Kong SAR	66 (2.1) ▲
^{2a} Canada, British Columbia	63 (2.0) ▲
^{2a} Canada, Alberta	63 (1.9) ▲
Hungary	60 (2.3) ▲
Canada, Quebec	59 (2.4) ▲
Canada, Nova Scotia	57 (2.0) ▲
[†] Netherlands	56 (2.0) ▲
Germany	56 (2.0) ▲
Italy	56 (2.1) ▲
Luxembourg	55 (1.7) ▲
^{†2a} United States	54 (2.1) ▲
^{2a} Russian Federation	53 (2.3) ▲
^{2a} Denmark	53 (2.4) ▲
Lithuania	53 (2.0) ▲
Sweden	53 (1.8) ▲
England	50 (1.8) ▲
Spain	49 (1.8) ▲
Chinese Taipei	49 (2.0) ▲
^{†2a} Belgium (Flemish)	48 (1.8) ▲
Austria	48 (2.2) ▲
Singapore	47 (1.7) ▲
^{2b} Israel	47 (2.3) ▲
^{2a} Bulgaria	45 (2.7)
Belgium (French)	45 (2.0) ▲
Poland	45 (2.2)
Latvia	43 (2.1)
New Zealand	43 (1.8)
Slovenia	43 (1.6)
France	43 (1.9)
[†] Scotland	42 (2.1)
Slovak Republic	41 (2.4)
Romania	41 (2.6)
International Avg.	41 (0.3)
Moldova, Rep. of	41 (2.5)
Iceland	35 (1.8) ▼
[‡] Norway	34 (2.3) ▼
^{2a} Georgia	34 (1.9) ▼
Trinidad and Tobago	24 (2.2) ▼
Macedonia, Rep. of	22 (2.0) ▼
Iran, Islamic Rep. of	20 (1.6) ▼
Kuwait	12 (1.4) ▼
South Africa	8 (0.9) ▼
Indonesia	6 (0.9) ▼
Qatar	6 (0.7) ▼
Morocco	5 (1.0) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average ▲

Percentage of students receiving full credit significantly lower than international average ▼

[†] 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).^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.17 PIRLS 2006 High International Benchmark – Item 11 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

1 Point: Sample Correct Response

10. Which section of the article tells you how thick the ice is in Antarctica?
- ☒ A What is Antarctica?
- ☐ B The Weather in Antarctica
- ☐ C Penguins in Antarctica
- ☐ D A Letter from Antarctica

Country	Percent Correct
^{2a} Russian Federation	84 (1.6) 🟢
Sweden	84 (1.6) 🟢
Luxembourg	83 (1.2) 🟢
[†] Netherlands	81 (1.6) 🟢
Germany	80 (1.4) 🟢
^{†2a} Belgium (Flemish)	79 (1.4) 🟢
^{2a} Bulgaria	78 (2.1) 🟢
Latvia	77 (1.8) 🟢
^{2a} Denmark	76 (1.9) 🟢
Lithuania	75 (1.4) 🟢
Italy	74 (2.0) 🟢
Austria	74 (1.5) 🟢
Slovak Republic	73 (1.7) 🟢
^{2a} <i>Canada, British Columbia</i>	70 (2.2) 🟢
Hungary	70 (2.4) 🟢
Hong Kong SAR	70 (1.8) 🟢
^{2a} <i>Canada, Alberta</i>	68 (2.0) 🟢
<i>Canada, Nova Scotia</i>	67 (1.5) 🟢
^{2a} <i>Canada, Ontario</i>	66 (2.2) 🟢
New Zealand	65 (1.6) 🟢
Singapore	65 (1.6) 🟢
<i>Canada, Quebec</i>	65 (2.3) 🟢
England	64 (1.9) 🟢
Poland	63 (2.0) 🟢
[†] Scotland	63 (2.2) 🟢
France	61 (1.8) 🟢
^{†2a} United States	60 (1.7)
Slovenia	60 (1.9)
Iceland	58 (1.6)
International Avg.	57 (0.3)
Moldova, Rep. of	56 (2.7)
Chinese Taipei	54 (1.7)
Romania	53 (2.4)
^{2b} Israel	52 (1.9) 🟡
Belgium (French)	51 (2.2) 🟡
Macedonia, Rep. of	50 (2.5) 🟡
^{2a} Georgia	47 (2.7) 🟡
[‡] Norway	43 (2.4) 🟡
Spain	39 (2.2) 🟡
Iran, Islamic Rep. of	32 (1.6) 🟡
Trinidad and Tobago	24 (2.0) 🟡
Indonesia	21 (1.6) 🟡
South Africa	15 (1.2) 🟡
Qatar	15 (0.9) 🟡
Kuwait	14 (1.3) 🟡
Morocco	12 (1.5) 🟡

Percentage of students answering correctly significantly higher than international average

Percentage of students answering correctly significantly lower than international average ▼

† 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).

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.

NOTE: The International Average does not include the results from the Canadian provinces.

Exhibit 2.18 PIRLS 2006 High International Benchmark – Item 12 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

1 Point: Sample Full-Credit Response

9. In Step 3 of the pill bugs project, what do you think will happen if you move the damp leaves to the left corner of the box?

① They will sense the food and find it.

Country	Percent Full Credit
Singapore	83 (1.3) ▲
Italy	74 (1.9) ▲
^{2a} Russian Federation	73 (2.0) ▲
[†] Netherlands	72 (2.1) ▲
^{2a} Canada, Ontario	71 (1.9) ▲
^{2a} Canada, British Columbia	71 (2.0) ▲
^{†2a} Belgium (Flemish)	69 (1.4) ▲
^{2a} Canada, Alberta	69 (1.8) ▲
Sweden	69 (1.8) ▲
Latvia	68 (2.1) ▲
Lithuania	68 (1.9) ▲
Hong Kong SAR	67 (1.7) ▲
Austria	67 (1.9) ▲
Germany	65 (1.9) ▲
Luxembourg	64 (1.5) ▲
^{†2a} United States	63 (1.8) ▲
Chinese Taipei	63 (1.5) ▲
Hungary	63 (1.9) ▲
^{2a} Bulgaria	63 (2.8) ▲
Canada, Nova Scotia	61 (1.9) ▲
England	61 (1.9) ▲
Spain	61 (1.8) ▲
Slovenia	60 (1.7) ▲
Slovak Republic	59 (2.1) ▲
^{2a} Denmark	59 (2.4)
Iceland	58 (1.7) ▲
France	58 (2.1)
New Zealand	57 (1.4)
^{2b} Israel	57 (2.1)
Canada, Quebec	55 (2.2)
[†] Scotland	55 (2.1)
International Avg.	55 (0.3)
Romania	55 (2.4)
Moldova, Rep. of	54 (2.7)
[†] Norway	52 (2.2)
Poland	50 (1.9) ▼
Belgium (French)	48 (2.0) ▼
^{2a} Georgia	47 (2.5) ▼
Macedonia, Rep. of	40 (2.1) ▼
Trinidad and Tobago	40 (2.1) ▼
Iran, Islamic Rep. of	39 (2.1) ▼
Indonesia	25 (1.8) ▼
Kuwait	16 (1.7) ▼
Qatar	15 (1.0) ▼
Morocco	15 (1.8) ▼
South Africa	12 (1.0) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average ▲

Percentage of students receiving full credit significantly lower than international average ▼

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Achievement at the PIRLS 2006 Advanced International Benchmark

The description provided in Exhibit 2.19 reveals that students performing at the Advanced level responded fully to the PIRLS 2006 assessment. Students could make interpretations of figurative language and demonstrated that they understood the function of organizational features. They could integrate information across the texts, and provide full text-based support. The four example items illustrate how students performing at the Advanced International Benchmark demonstrated their ability to comprehend, interpret, and integrate details across the relatively challenging texts included in PIRLS 2006.

Exhibit 2.20 shows Item 13, a literary example from the “Little Lump of Clay” story. In this multiple-choice question, students were asked about the meaning of figurative language. The highest achievement was in the Russian Federation and Hungary with 65 percent of students responding correctly. However, on average internationally, only 42 percent of students gave the correct answer. Exhibit 2.21 presents Item 14, another example from the “Clay” story. To receive full credit on this 3-point question, students had to respond to all of the elements as demonstrated in the response shown in the exhibit. The task was very difficult for students, with less than half receiving full credit in any of the participating countries or provinces. With 47 percent receiving full credit, the Swedish fourth-grade students had the highest achievement. The international average was 27 percent.

Exhibits 2.22 and 2.23 contain Items 15 and 16, both informational examples from the “Searching for Food” science projects. The first item asked students to explain the function of the presentational device of the picture included with the pill bugs experiment, and all participants had difficulty with this item. Less than half the students in any country or Canadian province received full credit, with the highest achievement, 48 percent, occurring in the province of Ontario. The second item asked students to integrate information across several parts of the text to make an inference and provide an explanation about the overall purpose of the wormery project.

Bulgarian fourth-grade students outdistanced those in other countries on the wormery item, with 63 percent receiving full credit (22 percentage points higher than the next best country). These two items, illustrating the skills and strategies demonstrated by the students reaching the Advanced International Benchmark, were extremely difficult for fourth-grade students in general. The international averages were 21 and 26 percent, respectively.

Exhibit 2.19	Description of the PIRLS 2006 Advanced International Benchmark of Reading Achievement	PIRLS 2006 4th Grade
	Advanced International Benchmark	625
	Literary When reading literary texts, students can: • Integrate ideas across a text to provide interpretations of a character’s traits, intentions, and feelings, and provide full text-based support • Interpret figurative language • Begin to examine and evaluate story structure	
	Informational When reading information texts, students can: • Distinguish and interpret complex information from different parts of text, and provide full text-based support • Understand the function of organizational features • Integrate information across a text to sequence activities and fully justify preferences	

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Exhibit 2.20 PIRLS 2006 Advanced International Benchmark – Item 13 – Literary Example

PIRLS 2006
4th Grade

Purpose : Literary Experience

1 Point: Sample Correct Response

9. Which words in the story show that the little girl knew what she wanted to make?

- (A) 'her fingers felt heavenly.'
- (B) 'The little girl saw the lump of clay.'
- (C) 'The little girl holds him gently.'
- 'her hands moved with purpose.'

Country

Percent
Correct

^{2a} Russian Federation	65 (1.9) ▲
Hungary	65 (1.9) ▲
Hong Kong SAR	59 (1.7) ▲
^{2a} Denmark	59 (1.8) ▲
[†] Netherlands	59 (1.9) ▲
^{2a} Bulgaria	59 (2.8) ▲
Chinese Taipei	57 (1.8) ▲
Italy	55 (2.2) ▲
^{2b} Israel	55 (1.7) ▲
Singapore	53 (1.9) ▲
Luxembourg	52 (1.5) ▲
Lithuania	51 (1.9) ▲
Poland	50 (2.1) ▲
^{†2a} Belgium (Flemish)	48 (1.6) ▲
Slovak Republic	48 (2.2) ▲
^{†2a} United States	47 (1.9) ▲
Latvia	47 (2.1) ▲
Romania	46 (2.3)
^{2a} Canada, British Columbia	45 (1.9)
^{2a} Canada, Alberta	44 (2.3)
^{2a} Canada, Ontario	44 (2.1)
^{2a} Georgia	43 (2.7)
International Avg.	42 (0.3)
Canada, Quebec	41 (2.8)
Sweden	41 (2.0)
France	40 (1.6)
[‡] Norway	40 (2.4)
Moldova, Rep. of	39 (2.1)
[†] Scotland	38 (2.1)
Austria	37 (1.9) ▼
Canada, Nova Scotia	37 (1.7) ▼
England	35 (2.0) ▼
Germany	35 (1.6) ▼
New Zealand	34 (1.5) ▼
Iceland	33 (1.8) ▼
Iran, Islamic Rep. of	33 (1.6) ▼
Indonesia	31 (1.6) ▼
Belgium (French)	31 (1.6) ▼
Trinidad and Tobago	30 (2.2) ▼
Spain	28 (1.6) ▼
Qatar	25 (1.3) ▼
Slovenia	24 (1.4) ▼
Macedonia, Rep. of	23 (2.0) ▼
Morocco	22 (2.1) ▼
Kuwait	20 (1.6) ▼
South Africa	17 (1.1) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students answering correctly significantly higher than international average ▲

Percentage of students answering correctly significantly lower than international average ▼

[†] 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



TIMSS & PIRLS
International Study Center
Lynch School of Education, Boston College

Exhibit 2.21 **PIRLS 2006 Advanced International Benchmark – Item 14 – Literary Example**

PIRLS 2006
4th Grade

Purpose : Literary Experience

3 Points: Sample Full-Credit Response

10. Describe the different feelings the clay had at the beginning and the end of the story. Explain why his feelings changed.

3 in the beginning, the lump of clay felt lost hope, as nobody has picked him up from the bin. At the ~~end~~^{end}, the lump of ~~c~~lay was proud as it was made into a cup.

Country	Percent Full Credit
Sweden	47 (2.2) 
Singapore	44 (2.0) 
Slovenia	42 (1.6) 
^{2a} Canada, Ontario	41 (2.8) 
New Zealand	40 (1.7) 
Hungary	40 (2.2) 
Luxembourg	39 (1.6) 
^{12a} United States	39 (2.1) 
Hong Kong SAR	38 (1.9) 
Chinese Taipei	38 (1.8) 
^{12a} Belgium (Flemish)	38 (2.0) 
^{2a} Bulgaria	38 (2.3) 
^{2a} Canada, British Columbia	37 (2.0) 
Canada, Nova Scotia	37 (2.1) 
^{2a} Denmark	37 (1.6) 
England	36 (2.4) 
Italy	36 (2.1) 
Germany	36 (1.7) 
^{2a} Canada, Alberta	36 (2.3) 
Slovak Republic	36 (1.9) 
[†] Scotland	35 (2.5) 
Canada, Quebec	34 (2.1) 
Poland	32 (1.6) 
Austria	32 (1.7) 
^{2a} Russian Federation	31 (2.0) 
Romania	30 (2.0) 
Latvia	29 (2.1) 
Lithuania	28 (1.7) 
^{2b} Israel	28 (1.6) 
[†] Netherlands	28 (1.7) 
International Avg.	27 (0.3) 
Moldova, Rep. of	27 (1.9) 
Iceland	26 (1.6) 
France	22 (1.6) 
Belgium (French)	22 (1.9) 
Spain	21 (1.6) 
[‡] Norway	19 (1.9) 
Macedonia, Rep. of	15 (1.3) 
Trinidad and Tobago	13 (1.3) 
^{2a} Georgia	9 (1.3) 
Iran, Islamic Rep. of	7 (0.8) 
South Africa	5 (0.9) 
Indonesia	5 (0.8) 
Kuwait	4 (0.8) 
Morocco	4 (0.8) 
Qatar	3 (0.5) 

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average

Percentage of students receiving full credit significantly lower than international average ▼

† 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).

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.

NOTE: The International Average does not include the results from the Canadian provinces.

Exhibit 2.22 PIRLS 2006 Advanced International Benchmark – Item 15 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

2 Points: Sample Full-Credit Response

7. Look at the picture for Study Pill Bugs. How does the picture help you to know what to do in the experiment?

 it helps you understand because it has arrows and theres lines in different places to tell you where to put everything

Country	Percent Full Credit
^{2a} Canada, Ontario	48 (2.7) ▲
^{2a} Russian Federation	46 (2.4) ▲
^{2a} Canada, British Columbia	46 (2.1) ▲
^{2a} Canada, Alberta	44 (1.7) ▲
^{†2a} United States	42 (2.4) ▲
England	41 (2.1) ▲
Latvia	40 (2.1) ▲
Canada, Nova Scotia	40 (1.9) ▲
New Zealand	40 (1.8) ▲
[†] Scotland	39 (2.1) ▲
Italy	35 (2.1) ▲
Hungary	33 (1.9) ▲
Singapore	33 (1.4) ▲
^{2a} Denmark	32 (1.6) ▲
^{†2a} Belgium (Flemish)	31 (1.8) ▲
Luxembourg	30 (1.5) ▲
[†] Netherlands	29 (1.6) ▲
[‡] Norway	28 (1.8) ▲
Slovak Republic	27 (2.0) ▲
Canada, Quebec	25 (2.0)
^{2a} Bulgaria	25 (2.1)
Hong Kong SAR	23 (1.9)
International Avg.	21 (0.3)
Spain	21 (1.6)
Poland	21 (2.0)
^{2b} Israel	20 (1.6)
Romania	19 (1.9)
France	19 (1.4) ▼
Lithuania	18 (1.4) ▼
Sweden	18 (1.3) ▼
Germany	17 (1.4) ▼
Trinidad and Tobago	16 (1.7) ▼
Austria	16 (1.4) ▼
Moldova, Rep. of	13 (1.9) ▼
Iceland	13 (1.2) ▼
Slovenia	13 (1.0) ▼
Macedonia, Rep. of	13 (1.5) ▼
^{2a} Georgia	9 (1.5) ▼
Belgium (French)	7 (1.0) ▼
South Africa	6 (0.9) ▼
Chinese Taipei	6 (0.7) ▼
Iran, Islamic Rep. of	5 (0.8) ▼
Indonesia	5 (0.8) ▼
Kuwait	3 (0.8) ▼
Qatar	2 (0.4) ▼
Morocco	1 (0.4) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average ▲

Percentage of students receiving full credit significantly lower than international average ▼

† 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).

^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



Exhibit 2.23 PIRLS 2006 Advanced International Benchmark – Item 16 – Informational Example

PIRLS 2006
4th Grade

Purpose : Acquire and Use Information

1 Point: Sample Full-Credit Response

12. Explain why it is important to put layers of soil and sand in the bottle.

① So that the worms can mix it when they come to the surface

Country	Percent Full Credit
^{2a} Bulgaria	63 (2.8) ●
Austria	41 (1.9) ●
^{2a} Russian Federation	39 (2.0) ●
Italy	38 (2.3) ●
Slovak Republic	37 (2.0) ●
Germany	36 (1.6) ●
Sweden	36 (2.0) ●
Latvia	35 (2.0) ●
Luxembourg	35 (1.5) ●
^{†2a} Belgium (Flemish)	33 (1.7) ●
Spain	32 (1.9) ●
Hong Kong SAR	32 (1.8) ●
^{2a} Canada, British Columbia	32 (1.9) ●
^{2a} Denmark	31 (1.8) ●
Chinese Taipei	30 (1.4) ●
Lithuania	29 (2.0) ●
[†] Netherlands	29 (1.7) ●
Poland	28 (1.9) ●
Slovenia	27 (1.5) ●
^{2a} Canada, Alberta	27 (1.7) ●
Romania	27 (1.9) ●
France	26 (1.4) ●
International Avg.	26 (0.3)
Belgium (French)	25 (1.4) ●
^{2a} Canada, Ontario	24 (2.0) ●
Hungary	24 (1.8) ●
Canada, Nova Scotia	24 (1.7) ●
New Zealand	24 (1.2) ●
England	24 (1.7) ●
Moldova, Rep. of	23 (2.1) ●
Canada, Quebec	22 (2.1) ●
[†] Scotland	22 (1.9) ▼
^{†2a} United States	21 (1.6) ▼
Singapore	21 (1.4) ▼
^{2a} Georgia	19 (2.1) ▼
^{2b} Israel	17 (1.6) ▼
Indonesia	17 (1.4) ▼
[‡] Norway	16 (2.1) ▼
Macedonia, Rep. of	15 (1.4) ▼
Trinidad and Tobago	15 (1.4) ▼
Iceland	13 (1.3) ▼
Iran, Islamic Rep. of	13 (1.4) ▼
Kuwait	12 (1.3) ▼
Qatar	11 (0.9) ▼
Morocco	9 (2.0) ▼
South Africa	6 (0.7) ▼

SOURCE: IEA Progress in International Reading Literacy Study (PIRLS) 2006

Percentage of students receiving full credit significantly higher than international average ●

Percentage of students receiving full credit significantly lower than international average ▼

- [†] 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).
- ^{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.

NOTE: The International Average does not include the results from the Canadian provinces.



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