

# PIRLS 2006

## ASSESSMENT FRAMEWORK AND SPECIFICATIONS

Progress in International Reading Literacy Study

August 2004

Ina V.S. Mullis  
Ann M. Kennedy  
Michael O. Martin  
Marian Sainsbury

### TIMSS & PIRLS

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



International Association for the  
Evaluation of Educational Achievement

المنارة للاستشارات

## PIRLS 2006 Assessment Framework and Specifications

by Ina V.S. Mullis, Ann M. Kennedy, Michael O. Martin, and Marian Sainsbury.

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For more information about PIRLS:

### **TIMSS & PIRLS**

International Study Center  
Lynch School of Education  
Manressa House  
Boston College  
140 Commonwealth Street  
Chestnut Hill, MA 02467  
United States

tel: +1-617-552-1600

fax: +1-617-552-1203

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# PREFACE

*Reading is fundamental* to all forms of personal learning and intellectual growth. In today's global society, a literate population is essential for a nation's social and economic development. To improve the quality of life for its people, a country needs to maximize the potential of its human, social, and material resources. Citizens that know how to read are crucial to this effort.

Concrete information about how well their students can read provides policymakers and researchers in every country with insight into how to improve literacy and reading achievement. To help improve reading teaching and learning around the world, the IEA General Assembly approved reading literacy as an essential component of the IEA's regular cycle of core studies, which also includes mathematics and science (known as TIMSS). With PIRLS 2006, IEA's Progress in International Reading Literacy Study (PIRLS) is in its second round of assessing reading achievement for students in their fourth year of school.

IEA, the International Association for the Evaluation of Educational Achievement, was founded in 1959 for the purpose of conducting comparative studies focusing on educational policies and practices in various countries around the world. In the 45 years since, IEA's membership has grown to more than 50 countries. It has a Secretariat located in Amsterdam, the Netherlands, and a data processing center in Hamburg, Germany. IEA studies have reported on a wide range of topics and subject matters, each contributing to a deep understanding of educational processes within individual countries and within a broad international context.

PIRLS 2006 provides countries with the unique opportunity to obtain internationally comparative data about how well their children can read. Countries also will obtain detailed information about home supports for literacy as well as school instruction. For the 35 countries that participated in PIRLS 2001, PIRLS 2006 will provide information on changes in students' reading achievement. Since PIRLS will continue on a five-year cycle into the future, new participants can collect important baseline information for monitoring trends in reading literacy.

The PIRLS 2006 Assessment Framework and Specifications is intended as a blueprint for IEA's 2006 assessment of reading literacy. Adapted from the widely-accepted PIRLS 2001 framework, the 2006 framework resulted from a collaborative process involving many individuals and groups – notably the PIRLS Reading Development Group (RDG) and the National Research Coordinators (NRCs) of the more than 40 countries participating in PIRLS. All told, the framework underwent several iterations in response to the comments and interests of the PIRLS countries and the reading research community, and embodies the ideas and interests of many individuals and organizations around the world.

Funding for PIRLS was provided by the National Center for Education Statistics of the U.S. Department of Education, the National Foundation for Educational Research in England and Wales, the World Bank, and the participating countries. The work contained in this document represents the efforts of a considerable number of people. I would like to express my thanks to the Reading Development Group; the staff of the TIMSS & PIRLS International Study Center at Boston College, especially Ann M. Kennedy, the PIRLS Coordinator; and to the staff involved from the IEA Data Processing Center and Secretariat, Statistics Canada, and the Educational Testing Service. I appreciate, in particular, the contribution of the National Research Coordinators, and of the PIRLS Study Directors, Ina V.S. Mullis and Michael O. Martin.

Hans Wagemaker  
Executive Director, IEA

## The TIMSS & PIRLS International Study Center at Boston College

The TIMSS and PIRLS International Study Center at Boston College serves as the International Study Center for IEA's studies in mathematics, science, and reading — the Trends in International Mathematics and Science Study (TIMSS) and the Progress in International Reading Literacy Study (PIRLS). The staff at the Study Center is responsible for the design and implementation of the study. The following had major responsibility for revising the PIRLS framework for the 2006 assessment.

Ina V.S. Mullis  
Co-Director, PIRLS

Michael O. Martin  
Co-Director, PIRLS

Eugenio J. González  
PIRLS Director, Operations and Analysis

Ann M. Kennedy  
PIRLS Study Coordinator

Marian Sainsbury\*  
PIRLS Reading Coordinator

Cheryl L. Jones  
PIRLS Research Associate

Lisa M. White  
PIRLS Literacy Specialist

*\*National Foundation for Educational Research in England and Wales*

## PIRLS Project Management Team

In implementing PIRLS, the International Study Center at Boston College works closely with the IEA Secretariat in Amsterdam, Statistics Canada in Ottawa, the IEA Data Processing Center in Hamburg, and Educational Testing Service in Princeton, New Jersey. In each country, a national representative, called the National Research Coordinator (NRC), is responsible for implementing PIRLS in accordance with international procedures.

## International Association for the Evaluation of Educational Achievement (IEA)

The IEA provides overall support in coordinating PIRLS. The Secretariat, located in Amsterdam, has particular responsibility for membership, translation verification, and hiring the quality control monitors. The Data Processing Center, located in Hamburg, is responsible for the accuracy and consistency of the PIRLS database within and across countries. The following persons are closely involved with PIRLS.

Hans Wagemaker  
Executive Director

Barbara Malak  
Director, Membership Relations

Juriaan Hartenberg  
Financial Manager

Dirk Hastedt  
Co-Director, IEA Data Processing Center

Oliver Neuschmidt  
Julianne Barth  
Co-Managers, TIMSS & PIRLS Data Processing

Pierre Foy  
Manager, Sampling



## Statistics Canada

Statistics Canada is responsible for PIRLS sampling activities in conjunction with Pierre Foy of the IEA Data Processing Center and the PIRLS Sampling Referee, Keith Rust of Westat, Inc. in the United States.

Marc Joncas  
Director, Sampling

Keith Rust  
Sampling Referee

## Educational Testing Service

Educational Testing Service provides psychometric support to the TIMSS and PIRLS International Study Center. Mathias Von Davier is the ETS liaison to the Study Center.

## PIRLS 2006 Advisory Groups

Updating the PIRLS Framework and Specifications for the 2006 assessment was a collaborative effort involving a series of reviews by the Reading Development Group, the Questionnaire Development Group, and the National Research Coordinators.

## PIRLS 2006 Reading Development Group

Dominique Lafontaine  
Service de Pedagogie  
Experimentale  
**Belguim**

Jan Mejding  
Danish University of  
Education  
**Denmark**

Sue Horner  
Qualifications and  
Curriculum Authority  
**England**

Renate Valtin  
Humboldt Universität  
**Germany**

Galina Zuckerman  
Russian Academy of  
Education  
**Russian Federation**

Anne Heenatimulla  
Ministry of Education  
**Singapore**

Karen Wixson  
University of Michigan  
**United States**

## PIRLS 2006 Questionnaire Development Group

Hong wei Meng  
The China National Institute of Education  
China, PRC

Marc Colmant  
Ministere de l'Education Nationale  
France

Knut Schwippert  
University of Hamburg  
Germany

Bojana Naceva  
Bureau for Development of Education  
Republic of Macedonia

Mieke van Diepen  
University of Nijmegen  
The Netherlands

Ragnar Gees Solheim  
National Center for Reading Education and Research  
Norway

Laurence Ogle  
National Center for Education Statistics  
United States

## National Research Coordinators

The PIRLS National Research Coordinators (NRCs) work with the project staff in the various areas to ensure that the study is responsive to their concerns, both policy-oriented and practical, and are responsible for implementing the study in their countries. The PIRLS NRCs for the 2006 assessment made excellent suggestions for updating the framework and specifications. A full list of NRCs is in Appendix A.





# 1

## Overview of IEA's PIRLS Assessment

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### The IEA and Reading Literacy

Reading literacy is one of the most important abilities students acquire as they progress through their early school years. It is the foundation for learning across all subjects, it can be used for recreation and for personal growth, and it equips young children with the ability to participate fully in their communities and the larger society.

Because it is vital to every child's development, the International Association for the Evaluation of Educational Achievement (IEA) conducts a regular cycle of studies of children's reading literacy and the factors associated with its acquisition in countries around the world. IEA's Progress in International Reading Literacy Study (PIRLS) focuses on the achievement of young children in their fourth year of schooling and the experiences they have at home and at school in learning to read. Designed to measure trends in reading literacy achievement,

PIRLS is conducted every five years.

The first PIRLS assessment took place in 2001; the next assessment after the 2006 assessment is planned for 2011.

Throughout the framework, various sources that have provided a research and scholarly basis for the framework are referenced.

These references are only a sample of the volumes of literature and research that have informed the PIRLS framework, including considerable research by countries participating in PIRLS.

IEA's 1991 Reading Literacy Study (Elley, 1992, 1994; Wolf, 1995) served as a foundation for PIRLS. It provided a basis for the PIRLS definition of reading literacy and for establishing the framework and developing the assessment instruments. Although the 1991 study provided the groundwork for PIRLS, the PIRLS Framework and Specifications were newly developed for the first assessment in 2001 (Campbell, Kelly, Mullis, Martin, and Sainsbury, 2001) and updated for the 2006 assessment. The PIRLS Framework and Specifications for 2006 and the instruments developed to assess the framework reflect the IEA's commitment to be forward-thinking and incorporate

the latest approaches to measuring reading literacy.

Many of the countries participating in PIRLS 2006 also participated in the 2001 study. These countries will be able to measure trends in reading achievement across the five-year period from 2001 to 2006.

## A Definition of Reading Literacy

In naming its 1991 study, the IEA decided to join the terms *reading* and *literacy* to convey a broad notion of what the ability to read means – a notion that includes the ability to reflect on what is read and to use it as a tool for attaining individual and societal goals. “Reading literacy” has been maintained for PIRLS, as it remains the appropriate term for what is meant by “reading” and what the study is assessing.

In developing a definition of reading literacy to serve as the basis for PIRLS, the IEA looked to its 1991 study, in which reading literacy was defined as “the ability to understand and use those written language forms required by society and/or valued by the individual.” The Reading Development Group for 2001 elaborated on this definition for PIRLS, so that it applies across ages yet makes explicit reference to aspects of the reading experience of young children. For 2006, the Reading Development Group refined the last sentence to highlight the widespread importance of reading in school and everyday life. The definition follows.

For PIRLS, reading literacy is defined as the ability to understand and use those written language forms required by society and/or valued by the individual. Young readers can construct meaning from a variety of texts. They read to learn, to participate in communities of readers in school and everyday life, and for enjoyment.

This view of reading reflects numerous theories of reading literacy as a constructive and interactive process (Anderson & Pearson, 1984; Chall, 1983; Ruddell & Unrau, 2004; Walter, 1994). Readers are regarded as actively constructing meaning and as knowing effective reading strategies and how to reflect on reading (Clay, 1991; Langer, 1995; Thorndike, 1973). They have positive attitudes toward reading and read for recreation. Readers can learn from a host of text types, acquiring knowledge of the world and themselves. They can enjoy and gain information from the many multi-modal forms in

which text is presented in today's society (Greaney & Neuman, 1990; Organization for Economic Cooperation and Development, 1999; Wagner, 1991). This includes traditional written forms such as books, magazines, documents, and newspapers. It also encompasses electronic presentations such as the Internet, email, and text messaging as well as text included as part of various video, film and television media, advertisements, and labeling.

Meaning is constructed through the interaction between reader and text in the context of a particular reading experience (Rosenblatt, 1978). The reader brings a repertoire of skills, cognitive and metacognitive strategies, and background knowledge. The text contains certain language and structural elements and focuses on a particular topic. The context of the reading situation promotes engagement and motivation to read, and often places specific demands on the reader.

Discussing what they have read with different groups of individuals allows students to construct text meaning in a variety of contexts (Guice, 1995). Social interactions about reading in one or more communities of readers can be instrumental in helping students gain an understanding and appreciation of texts. Socially constructed environments in the classroom or school library can give students formal and informal opportunities for broadening their perspectives about texts and seeing reading as a shared experience with their classmates. This can be extended to communities outside of school as students talk with their families and friends about ideas and information acquired from reading.

## Overview of Aspects of Student's Reading Literacy

PIRLS focuses on three aspects of student's reading literacy:

- processes of comprehension;
- purposes for reading; and
- reading behaviors and attitudes

Processes of comprehension and purposes for reading are the foundation for the PIRLS written assessment of reading comprehension.



Figure 1 shows the reading processes and purposes assessed by PIRLS and the percentages of the test devoted to each. It should be noted that the four processes are assessed within each purpose for reading. The reading purposes and the processes for comprehension are described in Chapter 2.

The reading purposes and comprehension processes will be assessed using test booklets containing five literary and five informational passages. Each passage will be accompanied by approximately 12 questions, with about half multiple-choice and half constructed-response item format. The design of the written assessment is discussed in detail in Chapter 4 and sample reading passages and questions from the PIRLS 2001 assessment are presented in Appendix B.

**Figure 1**  
**Percentages of Reading Assessment**  
**Devoted to Reading Purposes and Processes**

Purposes for Reading	
📖 Literary Experience	50%
📖 Acquire and Use Information	50%
Processes of Comprehension	
📖 Focus on and Retrieve Explicitly Stated Information	20%
📖 Make Straightforward Inferences	30%
📖 Interpret and Integrate Ideas and Information	30%
📖 Examine and Evaluate Content, Language, and Textual Elements	20%

## Reading Literacy Behaviors and Attitudes

Reading literacy involves not only the ability to construct meaning from a variety of texts, but also behaviors and attitudes that support lifelong reading. Such behaviors and attitudes contribute to the full realization of the individual's potential within a literate society.

A positive attitude toward reading may be among the most important attributes of a lifelong reader. Children who read well typically display a more positive attitude than do children who have not had a great deal of success with reading (Mullis, Martin, González, & Kennedy, 2003). Children who have developed positive attitudes and self-concepts regarding reading are also more likely to choose reading for recreation. When children read on their own time they are not only demonstrating a positive attitude, they are also gaining valuable experience in reading different types of texts that further their development as proficient readers.

In addition to reading for enjoyment, reading for knowledge and information is a hallmark of reading literacy acquisition. Using informational texts to learn more about a topic may help children develop their interests and gain confidence in their reading abilities. Furthermore, the knowledge gained through such reading enhances subsequent reading, broadening and deepening the reader's interpretation of texts.

Discussing one's reading, orally or in writing, establishes the reader as a member of a literate community. Readers can further develop their understanding of texts and explore various perspectives and interpretations by talking with other readers. These exchanges of ideas sustain a literate community, which can promote intellectual depth and openness to new ideas within society.

A student questionnaire will address students' attitudes towards reading and their reading habits. In addition, questionnaires will be given to students' parents, teachers, and school principals to gather information about students' home and school experiences in developing reading literacy. To provide information about national

contexts, countries will complete questionnaires about reading goals and curriculum and a profile of reading education in each country will be compiled. Chapter 3 describes the reading contexts addressed by the PIRLS questionnaires.

## Student Population Assessed

PIRLS assesses the reading literacy of children in their fourth year of formal schooling. The target population is defined as follows.

The target grade should be the grade that represents four years of schooling, counting from the first year of ISCED Level 1.

ISCED stands for the International Standard Classification of Education developed by the UNESCO Institute for Statistics. Level 1 corresponds to primary education or the first stage of basic education. The first year of Level 1 should mark the beginning of “systematic apprenticeship of reading, writing and mathematics (UNESCO, 1999).” Four years later would be the target grade, which is the fourth grade in most countries. However, given the linguistic and cognitive demands of reading, PIRLS would not want to assess very young children. Thus PIRLS also tries to ensure that students do not fall under the minimum average age at the time of testing for PIRLS 2001, which was 9.5 years old.

This population was chosen for PIRLS because it is an important transition point in children’s development as readers. Typically, at this point, students have learned how to read and are now reading to learn. By assessing the fourth grade, PIRLS is providing data that will complement TIMSS, IEA’s Trends in International Mathematics and Science Study, which regularly assesses achievement at fourth and eighth grades. By participating in PIRLS and TIMSS, countries will have information at regular intervals about how well their students read and what they know in mathematics and science. PIRLS also complements another international study of student achievement, the OECD’s Programme for International Student Assessment (PISA),

which assesses the reading literacy of 15-year-olds. In Appendix C, the similarities and differences between PIRLS and PISA are discussed in more detail.







# 2

## PIRLS Reading Purposes and Processes of Reading Comprehension

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PIRLS examines the processes of comprehension and the purposes for reading, however, they do not function in isolation from each other or from the contexts in which students live and learn. The first two aspects of reading literacy addressed by PIRLS, processes of comprehension and purposes for reading, form the basis of the written test of reading comprehension. The last aspect, behavior and attitudes, will be addressed by the student questionnaire (see Chapter 3).

## Processes of Comprehension

Readers construct meaning in different ways. They focus on and retrieve specific ideas, make inferences, interpret and integrate information and ideas, and examine or evaluate text features.

Transcending these processes are the metacognitive processes and strategies that allow readers to examine their understanding and adjust their approach (Jacobs, 1997; Paris, Wasik, & Turner, 1996; VanDijk & Kintsch, 1983). In addition, the knowledge and experiences that readers bring to reading equip them with an understanding of language, texts, and the world through which they filter their comprehension of the material (Alexander & Jetton, 2000; Beach & Hynds, 1996; Clay, 1991; & Hall, 1998).

Four types of comprehension processes are used in the PIRLS assessment to develop the comprehension questions for the passages presented to students. Across the assessment, a combination of questions, each dealing with one of the processes, enables students to demonstrate a range of abilities and skills in constructing meaning from written texts. Along with each process and its components, examples of questions that may be used to assess that process are discussed. The types of comprehension processes are described below.

In thinking about assessment questions, there is, of course, a substantial interaction between the length and complexity of the text and the sophistication of the comprehension processes required. It may initially seem that locating and extracting explicitly stated information would be less difficult than, for example, making interpretation across an entire 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.



## Focus on and Retrieve Explicitly Stated Information

Readers vary the attention they give to explicitly stated information in the text. Some ideas in the text may elicit particular focus and others may not. For example, readers may focus on ideas that confirm or contradict predictions they have made about the text's meaning or that relate to their general purpose for reading. In addition, readers often need to retrieve information explicitly stated in the text, in order to answer a question they bring to the reading task, or to check their developing understanding of some aspect of the text's meaning.

In focusing on and retrieving explicitly stated information, readers use various ways to locate and understand content that is relevant to the question posed. Retrieving appropriate text information requires that the reader not only understand what is stated explicitly in the text, but also how that information is related to the information sought.

Successful retrieval requires a fairly immediate or automatic understanding of the text. This process needs little or no inferring or interpreting. There are no "gaps" in meaning to be filled – the meaning is evident and stated in the text. The reader must, however, recognize the relevance of the information or idea in relation to the information sought.

Focus on the text typically remains at the sentence or phrase level in this type of text processing. The process may require the reader to focus on and retrieve several pieces of information; but in each case the information is usually contained within a sentence or phrase.

Reading tasks that may exemplify this type of text processing include the following:

- identifying information that is relevant to the specific goal of reading
- looking for specific ideas
- searching for definitions of words or phrases
- identifying the setting of a story (e.g., time, place)
- finding the topic sentence or main idea

(when explicitly stated)

## Make Straightforward Inferences

As readers construct meaning from text, they make inferences about ideas or information not explicitly stated. Making inferences allows the reader to move beyond the surface of texts and to fill in the “gaps” in meaning that often occur in texts. Some of these inferences are straightforward in that they are based mostly on information that is contained in the text: the reader may merely need to connect two or more ideas or pieces of information. Although the ideas may be explicitly stated, the connection between them is not, and thus must be inferred. Straightforward inferences are very much text-based. Although not explicitly stated in the text, the meaning remains relatively clear.

Skilled readers often make these kinds of inferences automatically. They may immediately connect two or more pieces of information, recognizing the relationship even though it is not stated in the text. In many cases, the author has constructed the text to lead readers to the obvious or straightforward inference. For example, the actions of a character across the story may clearly point to a particular character trait, and most readers would come to the same conclusion about that character’s personality or viewpoint.

With this type of processing, the reader typically focuses on more than just sentence- or phrase-level meaning. The focus may be on local meaning, residing in part of the text, or on more global meaning, representing the whole text. In addition, some straightforward inferences may call upon readers to connect local and global meanings.

Reading tasks that may exemplify this type of text processing include the following:

- inferring that one event caused another event
- concluding what is the main point made by a series of arguments
- determining the referent of a pronoun
- identifying generalizations made in the text
- describing the relationship between two characters

## Interpret and Integrate Ideas and Information

As with the more straightforward inferences, the reader engaging in this process may focus on local or global meanings, or may relate details to overall themes and ideas. In any case, the reader is processing text beyond the phrase or sentence level.

As readers interpret and integrate ideas and information in the text, they often need to draw on their understanding of the world. They are making connections that are not only implicit, but that may be open to some interpretation based on their own perspective. When they interpret and integrate text information and ideas, readers may need to draw on their background knowledge and experiences more than they do for straightforward inferences. Because of this, meaning that is constructed through interpreting and integrating ideas and information is likely to vary among readers, depending upon the experiences and knowledge they bring to the reading task.

By engaging in this interpretive process, readers are attempting to construct a more specific or more complete understanding of the text by integrating personal knowledge and experience with meaning that resides in the text. For example, the reader may draw on experience to infer a character's underlying motive or to construct a mental image of the information conveyed.

Reading tasks that may exemplify this type of text processing include the following:

- discerning the overall message or theme of a text
- considering an alternative to actions of characters
- comparing and contrasting text information
- inferring a story's mood or tone
- interpreting a real-world application of text information

## Examine and Evaluate Content, Language, and Textual Elements

As readers examine and evaluate the content, language, and elements of the text, the focus shifts from constructing meaning to critically considering the text itself. In terms of content, readers

draw on their interpretations and weigh their understanding of the text against their understanding of the world – rejecting, accepting, or remaining neutral to the text’s representation. For example, the reader may counter or confirm claims made in the text or make comparisons with ideas and information found in other sources.

In reflecting on text elements, such as structure and language, readers examine how meaning is presented. In doing so, they draw upon their knowledge of text genre and structure, as well as their understanding of language conventions. They may also reflect on the author’s devices for conveying meaning and judge their adequacy, and question the author’s purpose, perspective, or skill.

The reader engaged in this process is standing apart from the text and examining or evaluating it. The text content, or meaning, may be examined from a very personal perspective or with a critical and objective view. Here the reader relies on knowledge about the world or on past reading.

In examining and evaluating elements of text structure and language, readers draw upon their knowledge of language usage and general or genre-specific features of texts. The text is considered as a way to convey ideas, feelings, and information. Readers may find weaknesses in how the text was written or recognize the successful use of the author’s craft. The extent of past reading experience and familiarity with the language are essential to this process.

Reading tasks that may exemplify this type of text processing include the following:

- evaluating the likelihood that the events described could really happen
- describing how the author devised a surprise ending
- judging the completeness or clarity of information in the text
- determining an author’s perspective on the central topic

## Purposes for Reading

Reading literacy is directly related to the reasons why people read. Broadly, these reasons include reading for personal interest and pleasure, reading to participate in society, and reading to learn. For young readers, emphasis is placed on reading for interest or pleasure and reading to learn.

The PIRLS assessment of reading literacy will focus on the two purposes that account for most of the reading done by young students both in and out of school:

- reading for literary experience; and
- reading to acquire and use information

Because both types of reading are important at this age, the PIRLS assessment contains an equal proportion of material assessing each purpose. Although the assessment distinguishes between purposes for reading, the processes and strategies readers use for both purposes are perhaps more similar than different.

Each of these purposes for reading is often associated with certain types of texts. For example, reading for literary experience is often accomplished through reading fiction, while reading to acquire and use information is generally associated with informative articles and instructional texts. However, purposes for reading do not align strictly with types of texts. For example, biographies or autobiographies can be primarily informational or literary, but include characteristics of both purposes. Because people's tastes and interests are so varied, almost any text could meet either purpose.

The content, organization, and style that may be typical of a particular text genre have implications for the reader's approach to understanding the text (Graesser, Golding, & Long, 2000; Kirsch & Mosenthal, 1989; Weaver & Kintsch, 1996). It is in the interaction between reader and text that meanings are made and purposes are achieved. For the assessment, passages will be classified by their primary purposes and by the kinds of questions asked. That is, passages classified as informational will be accompanied by questions about the information contained in the passages and those classified

as literary will have questions addressing theme, plot events, characters, and setting.

The early reading of most young children centers on literary and narrative text types. In addition, many young readers also enjoy acquiring information from books and other types of reading material. This kind of reading becomes more important as students develop their literacy abilities and are increasingly required to read in order to learn across the curriculum (Langer, 1990).

Within each of the two purposes for reading, many different text forms can be identified. Texts differ in the way in which ideas are organized and presented and elicit varying ways of constructing meaning (Goldman & Rakestraw, 2000). Text organization and format can vary to a great degree, ranging from sequential ordering of written material to snippets of words and phrases arranged with pictorial and tabular data. In selecting texts for the PIRLS assessment, the aim is to present a wide range of text types within each purpose for reading. Texts will be selected only from sources typical of those available to students in and out of school. The goal is to create a reading experience for students participating in the assessment that, as much as possible, is similar to authentic reading experiences they may have in other contexts.

The two purposes for reading and the different types of texts included within each are described in the following sections.

### Reading for Literary Experience

In literary reading, the reader engages with the text to become involved in imagined events, setting, actions, consequences, characters, atmosphere, feelings, and ideas, and to enjoy language itself. To understand and appreciate literature, the reader must bring to the text his or her own experiences, feelings, appreciation of language and knowledge of literary forms. For young readers, literature offers the opportunity to explore situations and feelings they have not yet encountered. The main form of literary texts used in the PIRLS assessment is narrative fiction. Given differences in curricula and cultures across the participating countries, it is difficult for

PIRLS to include some types of literary texts. For example, poetry is difficult to translate and plays are not widely taught in the primary grades.

Events, actions, and consequences depicted in narrative fiction allow the reader to experience vicariously and reflect upon situations that, although they may be fantasy, illuminate those of real life. The text may present the perspective of the narrator or a principal character, or there may be several such viewpoints in a more complex text. Information and ideas may be described directly or through dialogue and events. Short stories or novels sometimes narrate events chronologically, or sometimes make more complex use of time with flashbacks or time shifts.

### Reading to Acquire and Use Information

In reading for information, the reader engages not with imagined worlds, but with aspects of the real universe. Through informational texts, one can understand how the world is and has been, and why things work as they do. Readers can go beyond the acquisition of information and use it in reasoning and in action. Informational texts need not be read from beginning to end; readers may select the parts they need. Different organizations make different demands on the reader, although there are no hard and fast distinctions. It also can be noted that despite their organization, informational texts may or may not have headings or other types of textual organizers.

Informational texts ordered chronologically present their ideas as a sequence ordered in time. Such texts may recount events, for example as historical facts or as diary entries, personal accounts, or letters. Biographies and autobiographies, detailing the events of real lives, are a major group of texts of this type. Other chronologically organized texts are procedural, for example recipes and instructions. Here, the imperative form is often used and the reader is expected not just to understand but also to act in accordance with what is read.

Sometimes information and ideas are organized logically rather than chronologically. For example, a research paper may describe cause and effect, articles can compare and contrast such things as societies or the weather, and editorials may present arguments and coun-

ter arguments or put forth a viewpoint with supporting evidence. Persuasive texts aim directly at influencing the reader's view as in the presentation of a problem and recommended solution. In discussion and persuasion, the reader must follow the development of ideas and bring to the text a critical mind in forming his or her own opinion.

Sometimes informational texts are expository, presenting explanations or describing people, events, or things. In a thematic organization, aspects of a topic are clustered and described together in the text. Finally, it should be observed that presentation of information need not be in the form of continuous text. Such forms include brochures, lists, diagrams, charts, graphs, and those that call for actions on the part of the reader like advertisements or announcements. It should be emphasized that a single informational text often uses one or more ways of presenting information. Even informational pieces that are primarily text, often are documented with tables or illustrated with pictures and diagrams.









# 3

## Contexts for Learning to Read

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Young children acquire reading literacy through a variety of activities and experiences within different contexts. At fourth grade, children develop the skills, behaviors, and attitudes associated with reading literacy mainly at home and in school. There, various resources and activities foster reading literacy. Some of the experiences are very structured, particularly those that occur in classrooms as part of reading instruction. Others, less structured, occur as a natural and informal part of the child's daily activities. Both are critical in helping young children develop reading literacy. Moreover,

each environment supports the other, and the connection between home and school is an important element in learning.

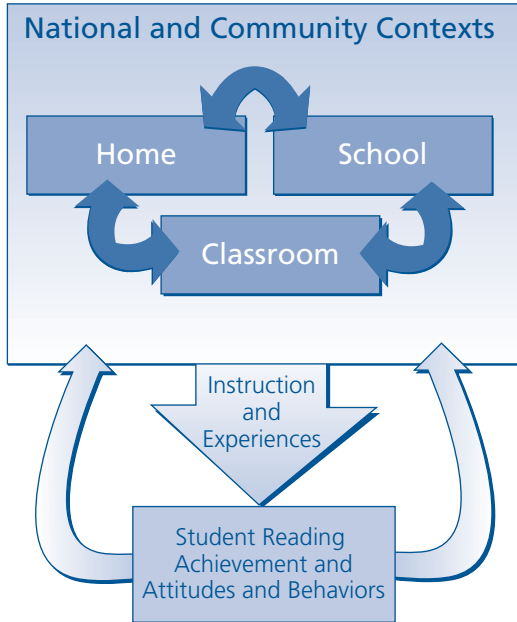
Beyond the direct home and school influences on children's reading are the broader environments in which children live and learn. Children's schools and homes are situated in communities with different resources, goals, and organizational features. These aspects of the community will likely influence children's homes and schools and thus their reading literacy. Even broader, yet as important, is the national context in which children live and go to school. The resources available in a country, government decisions about education, and the curricular goals, programs, and policies related to reading education will influence the school and home contexts for learning to read.

Figure 2 shows the relationships among the home, school, and classroom influences on children's reading development and how this interaction is situated within and shaped by the community and country. The figure illustrates how student outcomes, including both achievement and attitudes, are a product of instruction and experiences gained in a variety of contexts. Also, it is noted that achievement and attitudes can be reinforcing. Better readers may enjoy and value reading more than poorer readers, thus reading more and further improving their skills. Indeed, the model in its entirety can be viewed as a system of reciprocal influences as student outcomes also feed back into the home, school, and classroom environments to some degree.

To provide information about the national contexts in which children's homes and schools are situated, PIRLS 2001 published the *PIRLS 2001 Encyclopedia* (Mullis, Martin, Kennedy & Flaherty, 2002), a collection of essays on reading education in the participating countries. Expanding upon the structure of the 2001 encyclopedia, PIRLS 2006 will develop *Profiles of Curriculum and Instruction in the PIRLS 2006 Countries*. This volume will incorporate responses from a new curriculum questionnaire, which will focus on the national context for the support and implementation of reading curriculum and policy in a country. To gather information about the home,

school, and classroom factors associated with the development of reading literacy, PIRLS 2006 will use questionnaires completed by the students tested, their parents or caregivers, their school principals, and their teachers.

**Figure 2**  
**Contexts for the Development of Reading Literacy**



## National and Community Contexts

Cultural, social, political, and economic factors all contribute to the backdrop of children's literacy development within a country and community. The success a country has in educating its children and producing a literate population depends greatly on the country's emphasis on the goal of literacy for all, the resources it has available, and the mechanisms it can assemble for providing effective programs and incentives that foster reading and improve achievement.

*Emphasis on Literacy.* The value that a country places on literacy and literacy activities affects the commitment of time and resources

necessary for a literature-rich environment. A country's decision to make literacy a priority is influenced in part by people's backgrounds and beliefs about the importance of literacy for success both within and outside of school (Bourdieu, 1986; Street, 2001). Even without extensive economic resources, countries can promote literacy through national and local policies on reading education. Outside of school, parents and others within the community can foster an environment that values reading by inviting and sharing experiences with text.

*Demographics and Resources.* The characteristics of a country's population and the national economy can have a tremendous impact on the relative ease or difficulty of producing high rates of literacy among its people and on the availability and extent of the resources required. Countries with a large and diverse population and few material and human resources generally face greater challenges than those with more favorable circumstances (Greaney, 1996). Nationally and locally, the diversity of languages used, levels of adult literacy, and other social and health demographics can influence the difficulty of the educational task. Changing populations due to migration within and across country borders also may affect priorities among literacy-related issues in education policy and require additional resources. Having economic resources enables better educational facilities and greater numbers of well-trained teachers and administrators. It also provides the opportunity to invest in literacy through widespread community programs and by making print materials and technology more readily available in community or school libraries, classrooms, and in homes (Neuman, 1999).

*Governance and Organization of Education System.* How educational policies are established and implemented can have a tremendous impact upon how schools operate. Some countries have highly centralized systems of education in which most policy-related decisions are made at the national or regional level and there is a great deal of uniformity in education in terms of curriculum, textbooks, and general policies. Other countries have much more decentralized systems in which many important decisions are made at the local and

school levels, resulting in greater variation in how schools operate and students are taught.

The way students proceed through school (also referred to as “student flow”) is a feature of education systems that varies across countries. Particularly relevant for a study of fourth-grade reading achievement are the age of entry to formal schooling and the age when formal reading instruction begins. Students in countries that begin formal schooling at a younger age do not necessarily begin to receive formal reading instruction in their first year, due to the cognitive demands of reading. In addition, for a study of children at this level, the type of school that students generally attend during the early years and whether students will eventually move into a tracked or comprehensive program of study are of interest.

*Curriculum Characteristics and Policies.* Curricular policies are shaped in many different ways. At the highest level, they may be established in some detail by government and jurisdictional requirements. These may range from policies that govern the age or grade in which formal reading instruction begins to those that prescribe the types of material and the methods to be used in teaching reading. Even where external control over the curriculum is strong, the way the curriculum is implemented may be affected by local school characteristics and practices. Curricular aspects and governing policies particularly relevant to the acquisition of reading literacy include standards or benchmarks established for reading development, testing and promotion practices, policies for classroom assignment or grouping, instructional time, methods and materials, and ways of identifying students in need of remediation.

## Home Contexts

Much research has provided insight into the importance of home environments for children’s reading literacy. Long before children develop the cognitive and linguistic skills necessary for reading, early experiences with printed and oral language establish a foundation for learning (Adams, 1990; Ehri, 1995; Holdaway, 1979; & Verhoeven, 2002). Particular home characteristics can create a climate that encourages children to explore and experiment with language and

various forms of texts. Parents and other family members impart their own beliefs about reading that shape the way that children are exposed to and experience text (Baker, Afflerbach, & Reinking, 1996; Cramer & Castle, 1994). As young children engage in more challenging and complex activities for play and recreation, both alone and with peers, the time devoted to literacy-related activities becomes critical. Throughout a child's development, the involvement of parents or caregivers remains central to the acquisition of reading literacy. The following discussion highlights some of the major aspects of the home that contribute to reading literacy development.

*Activities Fostering Literacy.* Central to the home environment are the literacy-related activities that parents or caregivers engage in with children or encourage and support (Gadsden, 2000; Leseman & de Jong, 2000; Snow & Tabors, 1996; & Weinberger, 1996). As children develop their capacity for oral language, they are learning the rules of language use. This knowledge will be translated into expectations for printed language as well.

Perhaps the most common and important early literacy activity involves adults and older children reading aloud to young children. When children are read aloud to and encouraged to engage in the text and pictures in books, they learn that printed text conveys meaning and that being able to read is valuable and worthwhile.

Other encounters with print also help to establish children's awareness of and familiarity with text. Writing activities such as writing names or forming letters reinforces young children's developing awareness of text. Drawing, especially in connection with stories and storytelling, may also promote literacy. Research also indicates that children's play with books and other print material helps to lay the foundations of reading literacy (Taube & Mejdning, 1996). Moreover, early associations of enjoyment with printed text establish a positive attitude toward reading that will motivate young readers (Martin, Mullis, & González, 2004).

*Languages in the Home.* Because learning to read is very much dependent on children's early experience with language, the lan-



guage or languages spoken at home, and how language is used, are important factors in reading literacy development. Children whose knowledge of the language used in formal reading instruction is substantially below that expected of children of that age are likely to be at an initial disadvantage. In addition, use of different languages or dialects at home and at school may cause problems for young students learning to read.

*Economic Resources.* As children mature, the support and guidance provided at home contributes to literacy development in many different ways. An important aspect of the home environment is the availability of reading material and educational resources. Research consistently shows a strong positive relationship between achievement and socioeconomic status, or indicators of socio-economic status such as parents' or caregivers' occupation or level of education. Research also shows that ready access to various types of printed material is strongly associated with literacy achievement (Purves & Elley, 1994). Homes that make such material available convey to children an expectation that learning to read is a desirable and worthwhile goal.

*Social and Cultural Resources.* Society and culture are inherent influences on the perceived importance of reading for academic and personal success. Parents and other family members convey their beliefs and attitudes in the way they teach their children to read and to appreciate text. Parents and caregivers engaging in many literacy activities fosters children's positive attitudes towards reading. For most children, the home provides modeling and direct guidance in effective literacy practices. Young children who see adults and older children reading or using texts in different ways are learning to appreciate and use printed material. Beyond modeling, parents or other caregivers can directly support reading development by expressing positive opinions about reading and literacy.

*Home-School Connection.* Across all of the home factors associated with acquiring reading literacy, parents' or caregivers' involvement in children's schooling may be key to literacy development (Christenson, 1992). Research shows that students who discuss their school studies and what they are reading with their parents or caregiv-

ers are higher achievers than those who do not (Mullis, Martin, González & Kennedy, 2003). Involved parents or caregivers can reinforce the value of learning to read, monitor children's completion of reading assignments for school, and encourage children through praise and support.

*Students' Out-of-School Literacy Activities.* As children continue to develop reading literacy, the time they devote to reading and other recreational activities becomes significant. The child not only enjoys reading for recreation but also practices skills that are being learned. Reading for fun or to investigate topics of interest is the hallmark of lifelong reading. Thus, children may choose to spend their out-of-school time reading books or magazines, looking up information on the Internet, or going to a local library to read or take out books (Shapiro & Whitney, 1997).

Independent reading and discussing reading can be an integral part of the ongoing activities in the home. Children's parents and caregivers can encourage them to balance the time spent on literacy-related activities with that spent on perhaps less enriching pastimes such as playing video games or watching excessive amounts of television (National Reading Panel, 2000). Some research indicates a negative correlation between time spent watching television and reading achievement, while time spent reading for fun is positively correlated (VanderVoort, 2001).

Young readers and their friends also can be encouraged to take advantage of extracurricular activities promoting literacy skills provided through school and local libraries or other venues. The influence of peers can be helpful in making it desirable to participate in such activities. For example, students can share experiences and interpretations of text by going to see plays, joining book clubs, or performing their own skits. Discussing reading with their families, friends, and community members gives children the opportunity to participate in one or more communities of readers. These social interactions strengthen young readers' abilities to gain meaning from text and understand how different readers can make different interpretations.

## School Contexts

Although the home can be a rich environment for developing reading literacy, for most children school remains the main location for formal learning and educational activities. By their fourth year of formal schooling, most students have acquired basic reading skills and are beginning to read more complex material with greater independence. This is due in part to the changed curricular demands placed on students at this level. At this point, children are transitioning from “learning to read” to “reading to learn (Chall, 1983).” Students’ educational experiences may be especially significant at this point in their reading literacy development.

Many factors in school affect reading literacy acquisition, directly or indirectly. Some of the main school factors that contribute to the acquisition of reading literacy are discussed below.

*School Policy and Curriculum.* Literacy-related policy and curriculum at the school level establishes the context for the formal reading instruction children receive from the beginning of formal schooling. Such policies may include decisions about the emphasis on reading instruction in relation to other content areas. They also may include preferences of instructional approaches to be implemented at various stages of language development. In turn, such decisions help to shape the environment within the school and the resources that are required (Belanger, Winter, & Sutton, 1992).

*School Environment and Resources.* The school environment encompasses many factors that affect a student’s learning. The sense of security that comes from having few behavior problems and little or no crime promotes a stable learning environment. School-wide programs that provide for the basic needs of students and their families (e.g., before- or after-school child care programs) may also be important. Other school-wide programs, which focus specifically on reading and literacy development, may directly support the acquisition of skills and attitudes toward reading literacy. The school environment is also enhanced when staff members show positive attitudes toward

students and collaborate in curricular and extracurricular activities that foster learning.

The extent and quality of school resources are also critical. These may include resources as basic as trained teachers or adequate classroom space, as well as less essential but beneficial resources like comfortable furniture and surroundings. The presence of a library or multi-media center may be particularly relevant for developing reading literacy. In addition, a reading specialist or language arts curriculum director can be important in strengthening the reading curriculum.

## Classroom Contexts

Even though the curricular policies and resources of the school often set the tone for accomplishment in the classroom, students' day-to-day classroom activities are likely to have a more direct impact on their reading development than the school environment. The instructional approaches and materials used are clearly important to establishing teaching and learning patterns in the classroom, including the curriculum, the strategies employed to teach it, and the availability of books, technology, and other resources. The teacher, of course, is another very influential determinant of the classroom environment (Lundberg & Linnakyla, 1993). This can include his or her preparation and training, use of particular instructional approaches, and experience in teaching reading. Finally, the behaviors, attitudes, and literacy level of classmates may influence the teacher's instructional choices, thereby affecting a student's reading development (Kurtz-Costes & Schneider, 1994).

*Teacher Training and Preparation.* The qualification and competence of teachers can be critical. Much has been written about what makes a teacher effective. One issue is the nature, amount, and content of teachers' training and education. For example, whether or not a teacher has been extensively trained in teaching reading may be especially relevant for students' acquisition of reading literacy.

The extent of teachers' continuing education and exposure to recent developments within the field of teaching reading is also important. Professional development through seminars, workshops, confer-

ences, and professional journals can help teachers to increase their effectiveness and broaden their knowledge of reading literacy acquisition. In some countries and jurisdictions, teachers are required to participate in such activities. Moreover, it has been suggested that the profession of teaching is one that requires lifelong learning, and that the most effective teachers continue to acquire new knowledge and skills throughout their careers.

*Classroom Environment and Structure.* Young students spend many hours each day in one or more classrooms. Classroom environment and structure have a significant influence on reading literacy development. The classroom can vary greatly, from highly structured and teacher-centered to more open and student-centered. One fundamental characteristic that may dictate how teachers approach instruction is class size, or teacher-to-student ratio. Some research has indicated that smaller class sizes during the early years of schooling may benefit students' reading development.

Also related to reading development is the interaction among students, informally and in classroom discussion of reading and literacy-related activities (Baker, 1991; Baker, Dreher, & Guthrie, 2000; Gambrell & Almasi, 1997; Guthrie & Alvermann, 1999). Classrooms that encourage language development and establish a supportive environment for talking about reading may be especially effective.

*Instructional Materials and Technology.* Another aspect of the classroom that is relevant for reading literacy includes the extent of the reading material available to students. The reading material and technology that teachers use in reading instruction form the core of students' reading experience in school. The material can range from a single textbook or "reading series" containing a variety of text types, to several books and other print materials compiled by the teacher.

The presence of a classroom library or a special place for independent reading may foster positive reading habits and attitudes, in addition to giving students ready access to a wide variety of texts and text types. The use of electronic texts and other technologies is

emerging as an important part of students' literacy learning (Kamil, Intrator, & Kim, 2000; Labbo & Kuhn, 1998; McKenna, 1998). Reading "on-line" is becoming an essential literacy skill as more and more diverse types of texts and information are made available to students through the Internet and other electronic modes of communication. Regardless of format, research has indicated that the students' exposure to a variety of texts and text types is associated with achievement in reading.

*Instructional Strategies and Activities.* There are innumerable strategies and activities that teachers may use for reading instruction (Creighton, 1997; Langer, 1995; Stieror & Maybin, 1994). Much research has been devoted to investigating which are most effective. Most educators and researchers agree that using elements of various approaches may be best, particularly when teachers tailor them to the needs of their students (Dole, Duffy, Roehler, & Pearson, 1991).

The activities most relevant for reading literacy development include those that pertain to word recognition, comprehension, cognitive and metacognitive reading strategies, writing activities such as story construction, and integrating all of the language processes – reading, writing, speaking, and listening (Shanahan & Neuman, 1997).

*Homework and Assessment.* Homework is a way to extend instruction and assess student progress. The types of homework assignments assigned in reading classes regularly include independent reading, comprehension questions about what students have read, or some combination of the two. The amount of homework assigned for reading varies both within and across countries. In some countries, homework is assigned typically to students who need the most practice – those who tend to have the most difficulty reading or understanding what they have read. In other countries, students receive homework as enrichment exercises. Time spent on homework generally has an inverse relationship with achievement. Those students for whom reading is difficult require more time to complete the assigned homework.

In addition to homework, teachers have a number of ways to monitor student progress and achievement. Informal assessment during instruction helps the teacher to identify needs of particular individuals, or to evaluate the pace of the presentation of concepts and materials (Lipson & Wixon, 1997). Formal tests, both teacher-made and standardized assessments, typically are used to make important decisions about the students, such as grades or marks, promotion, or tracking. The types of question included in tests and quizzes can send strong signals to students about what is important. For example, teachers can ask about a variety of textual information, such as facts, ideas, character motivations, and comparisons with other materials or personal experiences. Teachers also can use a variety of test formats ranging from multiple-choice questions to essays.







# 4

## Assessment Design and Specifications

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As in 2001, the PIRLS 2006 assessment includes a written test of reading comprehension to measure fourth-grade students' reading literacy achievement and a series of questionnaires focusing on contexts for reading literacy development to gather information about the contexts for developing reading literacy.

## Reporting Reading Achievement

PIRLS 2006 will report reading literacy achievement of fourth-grade students in each country as well as achievement by reading purpose and comprehension process. To keep the assessment burden on any one student to a minimum, each student is presented with only part of the assessment, as described below. Following data collection, student responses are placed on a common scale using item response theory methods that provide an overall picture of the assessment results for each country. As well as a scale for overall reading literacy, there will be separate scales for the two purposes for reading:

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

To provide information on the processes of reading comprehension, PIRLS 2006 also will provide separate scales for two processes of comprehension (Mullis, Martin, & González, 2004):

- retrieval and straightforward inferencing
- interpreting, integrating, and evaluating.\*

## Test Booklet Design

Given the broad coverage and reporting goals of the PIRLS framework and its emphasis on the use of authentic texts, it was inevitable that the specifications for the item pool would include extensive testing time. The PIRLS Reading Development Group found that a valid assessment of two purposes for reading, reading for literary experience and reading to acquire and use information, with reliable measures of two processes of comprehension required at least six hours of testing time. While the assessment material that can be presented in that time should provide good coverage of the reading material children meet in their everyday lives, it is not reasonable to expect to administer the entire set of reading passages and test items to any one child. Because of the difficulties of scheduling student assessments and because young children cannot be subjected to long

\* Retrieval and straightforward inferencing will combine items from the Focus on and retrieve explicitly stated material and Make straightforward inferences comprehension processes. Similarly, Interpreting, integrating, and evaluating will be based on items from the Interpret and integrate ideas and information and Examine and evaluate content, language, and textual elements processes.

testing periods, the testing time is limited to 80 minutes per student, with an additional 15–30 minutes for a student questionnaire.

With a total testing time of more than six hours but just one hour and twenty minutes per student, the assessment material must be divided among students in some way. The PIRLS design uses a matrix sampling technique, whereby the passages and accompanying items are divided into groups or blocks, and individual student booklets are made up from these blocks according to a plan. In PIRLS 2006, the more than six hours of testing time is divided into ten 40-minute blocks of passages and items, labeled L1–L5 for the literary passages and I1–I5 for the informational texts (see Figure 3). Four of the ten blocks were retained from PIRLS 2001 to provide a foundation for measuring trends in reading achievement; the remaining six will be developed specifically for the 2006 assessment.

**Figure 3**  
**PIRLS 2006 Matrix-Sampling Blocks**

Purpose for Reading	Block				
Literary Experience	<b>L1</b>	<b>L2</b>	<b>L3</b>	<b>L4</b>	<b>L5</b>
Acquire and Use Information	<b>I1</b>	<b>I2</b>	<b>I3</b>	<b>I4</b>	<b>I5</b>

In the PIRLS 2006 design, the ten blocks will be distributed across 13 booklets (see Figure 4). Each student booklet will consist of two 40-minute blocks of passages and items. Each student will respond to one assessment booklet and a student questionnaire. So as to present at least some passages in a more natural, authentic setting, two blocks (one literary and one informational) will be presented in color and a magazine-type format with the questions in a separate booklet. This booklet is referred to as the PIRLS “Reader.”

To enable linking among booklets, at least some blocks must be paired with others. Since the number of booklets can become very large if each block is to be paired with all other blocks, it was necessary to choose judiciously among possible block combinations. In the 13-booklet design used in PIRLS 2006, 12 test booklets are derived by combining four literary (L1, L2, L3, and L4) and four informational (I1, I2, I3, and I4) blocks. The 13th booklet, the Reader, accounts for the remaining literary block, L5, and informational block, I5.

**Figure 4**  
**PIRLS 2006 Student Booklet Design**

Booklet	Literary Experience	Acquire and Use Information
1	L1	L2
2	L2	L3
3	L3	L4
4	L4	I1
5	I1	I2
6	I2	I3
7	I3	I4
8	I4	L1
9	L1	I1
10	I2	L2
11	L3	I3
12	I4	L4
Reader	L5	I5

In this design, each of blocks L1 through L4 and I1 through I4 appear in three of the 12 booklets, each time paired with another, different, block. For example, literary block L1 appears with literary block L2 in booklet 1 and with informational blocks I4 and I1 in booklets 8 and 9. Similarly, literary block L2 appears not only with L1 in booklet 1 but also with literary block L3 in booklet 2 and with informational block I2 in booklet 10.

The pairing of blocks in booklets 1 through 12 ensures that there are good links both among the literary and among the informational passages and also between the two purposes for reading. The blocks in the Reader, L5 and I5, are not linked to any other blocks directly. However, because booklets are assigned to students using a randomized procedure, the group of students responding to the Reader is equivalent to those responding to the other booklets, within the margin of error of the sampling process. The Reader will be distributed so that the same proportion of students will respond to blocks L5 and I5 as to each of the other literary and informational blocks.

## Selecting Reading Passages for the Assessment

To reach the goal of approximating an authentic reading experience in the assessment, the reading passages presented to students must be typical of those read by students in their everyday experiences. Texts that exist for students to read in and outside school have typically been written by successful authors who understand writing for a young audience. These are more likely than passages written specifically for a test to elicit the full range of comprehension processes. Furthermore, they are more likely to engage students' interests, and to yield assessment questions that will elicit a range of responses to text that are similar to those elicited in authentic reading experiences. In the context of an international study, attaining authenticity in the assessment reading experience may be somewhat constrained by the need to translate a text into numerous languages. Thus, care is taken to choose texts that can be translated without loss in meaning or in potential for student engagement.

In selecting texts for use in an international survey of reading literacy, the potential for cultural bias must be considered. The set of texts used must range as widely as possible across nations and cultures. No country or culture should be over-represented in the assessment texts. Text selection thus involves collecting potential stimulus texts from as many countries as possible. The final selection of texts is based, in part, on the national and cultural representation of the entire set of assessment texts. Texts that depend heavily on culture-specific knowledge are excluded.

The appropriateness and readability of texts for assessing fourth-grade students is determined through review by educators and curriculum specialists from countries participating in the assessment. Among the criteria used to select texts are topic and theme appropriateness for the grade level; fairness and sensitivity to gender, racial, ethnic, and religious considerations; nature and level of linguistic features; and density of information. The Fry Readability Index results are also provided. In addition, the time constraints of the test situation place some limits on the length of texts. Generally, texts selected will be no longer than 1,000 words so students have time to read the entire passage and answer the comprehension questions. However, length will vary somewhat because other text characteristics also affect rate of reading.

As a basis for measuring trends from 2001, PIRLS retained four passages and items from the 2001 assessment – two literary and two informational – to be included in the PIRLS 2006 assessment. To complete the design, six new passages and associated items will be selected – three literary and three informational.

## Question Types and Scoring Procedures

Students' ability to comprehend text through the four comprehension processes is assessed via comprehension questions that accompany each text. Two question formats are used in the PIRLS assessment – multiple-choice and constructed-response. Each multiple-choice question is worth one point. Constructed-response questions are worth one, two, or three points, depending on the depth

of understanding required. Up to half of the total number of points represented by all of the questions will come from multiple-choice questions. In the development of comprehension questions, the decision to use either a multiple-choice or a constructed-response format is based on the process being assessed, and on which format best enables test takers to demonstrate their reading comprehension.

*Multiple-Choice Questions.* Multiple-choice questions provide students with four response options, of which only one is correct. Multiple-choice questions can be used to assess any of the comprehension processes. However, because they do not allow for students' explanations or supporting statements, they may be less suitable for assessing students' ability to make more complex interpretations or evaluations.

In assessing fourth-grade students, it is important that linguistic features of the questions be developmentally appropriate. Therefore, the questions are written clearly and concisely. The response options are also written succinctly in order to minimize the reading load of the question. The options that are incorrect are written to be plausible, but not deceptive. For students who may be unfamiliar with this test question format, the instructions given at the beginning of the test include a sample multiple-choice item that illustrates how to select and mark an answer.

*Constructed-Response Questions.* For this type of test item students are required to construct a written response, rather than select a response from a set of options. The emphasis placed on constructed-response questions in the PIRLS assessment is consistent with the definition of literacy underlying the framework. It reflects the interactive, constructive view of reading – meaning is constructed through an interaction between the reader, the text, and the context of the reading task. This question type is used to assess any of the four comprehension processes. However, it is particularly well suited for assessing aspects of comprehension that require students to provide support or that result in interpretations depending upon students' background knowledge and experiences.

In the PIRLS assessment, constructed-response questions will be worth one, two, or three points, depending on the depth of understanding or the extent of textual support the question requires. In these questions, it is important to provide enough information to help students understand clearly the nature of the response expected.

Scoring guides for each constructed-response question describe the essential features of appropriate and complete responses. They focus on evidence of the type of comprehension the question assesses. They describe evidence of partial understanding and evidence of complete or extensive understanding. In addition, sample student responses at each level of understanding provide important guidance to raters.

In scoring students' responses to constructed-response questions, the focus is solely on students' understanding of the text, not on their ability to write well. Also, scoring takes into account the possibility of various interpretations that may be acceptable, given appropriate textual support. Consequently, a wide range of answers and writing ability may appear in the responses that receive full credit to any one question.

*Score Points.* In developing the assessment, the aim is to create blocks that each provide, on average, at least 15 score points – made up of approximately seven multiple-choice items (1 point each), two or three short-answer items (1 or 2 points each), and one extended-response item (3 points). The exact number of score points and the exact distribution of question types per block will vary somewhat, as different texts yield different types of questions.

## Releasing Assessment Material to the Public

PIRLS 2006 is the second of a regular five-year cycle of studies that will provide data on trends in reading literacy. Administered for the first time in 2001, PIRLS will be administered again in 2011, 2016, and so on into the future. The design provides for the release of many of the passages and items into the public domain as the international reports are published, while safeguarding the trend data by not releasing a substantial proportion of the items. As passages and



items are released, new assessment material will be developed to take their place.

According to the PIRLS design, two blocks of literary passages and two blocks of informational passages from the 2001 assessment were published after the data collection, including the literary and informational passages in the PIRLS Reader. These will be replaced with new passages and items for the 2006 assessment. Following the 2006 data collection, another four blocks will be released, two from the original 2001 assessment (L2 and I2) and two from those developed for 2006 (L5 and I5).

## Background Questionnaires

An important purpose of PIRLS is to study the home and school factors associated with children's reading literacy by the fourth grade. To that end, PIRLS will administer questionnaires to students, their parents, their teachers, and the principals of their schools. The questions are designed to measure key aspects of students' home and school environments.

*Student Questionnaire.* This questionnaire will be completed by each student who takes the PIRLS reading test. It asks about aspects of students' home and school lives, including classroom experiences and reading for homework, self-perception and attitudes toward reading, out-of-school reading habits, computer use, home literacy resources, and basic demographic information. The questionnaire requires 15-30 minutes to complete.

*Learning to Read Survey.* This short questionnaire is addressed to the parents or primary caregivers of each student taking part in the PIRLS data collection. It investigates child-parent literacy interactions, home literacy resources, parents' reading habits and attitudes, and home-school connections. Also, it collects basic demographic and socioeconomic information. Together with information collected from the students, parents' responses will provide a more complete picture of an important context for learning to read. This questionnaire is designed to take 10–15 minutes to complete.

*Teacher Questionnaire.* The reading teacher of each fourth-grade class in PIRLS will be asked to complete this questionnaire, which is designed to gather information about classroom contexts for developing reading literacy. The questionnaire asks teachers about characteristics of the class tested, such as size, reading level and language ability of the students; instructional time, materials, and activities for teaching reading and promoting the development of students' reading literacy; grouping of students for reading instruction; classroom resources; assessment practices; and home-school connections. It also asks teachers their views on their opportunities for collaboration with other teachers and for professional development, and for information about themselves and their education and training. This questionnaire requires about 30 minutes of the teacher's time.

*School Questionnaire.* The principal of each school in PIRLS will be asked to respond to this questionnaire. It asks about enrollment and school characteristics, such as location, resources available in the surrounding area, and indicators of the socioeconomic background of the student body; instructional time; emphasis and materials used in reading instruction for students in primary grades; school resources, such as the availability of instructional materials and staff; home-school connections; and school climate. It is designed to take about 30 minutes.

*Curriculum Questionnaire.* To provide information about the goals of reading instruction, the national research coordinator in each country will complete a questionnaire about the country's reading curriculum, including national policy on reading, goals and standards for reading instruction, time specified for reading, and provision of books and other literary resources.

## Profiles of Reading Curriculum and Instruction

*Profiles of Curriculum and Instruction in the PIRLS 2006 Countries* will provide a profile of each country's education system, with a particular focus on reading education for primary-school children. The volume will provide general information about the population, government, economy, and resources and describe how the

education system is organized and how decisions about education are made. The reading curriculum, including goals, materials, and instruction, will be discussed, along with information on assessment of reading achievement.





# REFERENCES

- Adams, M. J. (1990). *Beginning to read: Thinking and learning about print*. Cambridge, MA: MIT Press.
- Alexander, P. A. & Jetton, T. L. (2000). Learning from text: A multidimensional and developmental perspective. In M.L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.). *Handbook of reading research* (Vol. 3) (pp. 285-310). Mahwah, NJ: Lawrence Erlbaum Associates.
- Anderson, R. C., & Pearson, P. D. (1984). A schema-theoretic view of basic processes in reading comprehension. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 255-291). White Plains, NY: Longman.
- Baker, C. D. (1991). Literacy practices and social relations in classroom reading events. In C. Baker & A. Luke (Eds.). *Toward a critical sociology of reading pedagogy*. Philadelphia, PA: John Benjamins.
- Baker, L., Afflerbach, P., & Reinking, D. (1996). *Developing engaged readers in school and home communities*. Hillsdale, NJ: Erlbaum.
- Baker, L., Dreher, J. J., & Guthrie, J. T. (2000). *Engaging young readers: Promoting achievement and motivation*. New York: Guilford Publications.
- Beach, R., & Hynds, S. (1996). Research on response to literature. In R. Barr, M. L. Kamil, P. Mosenthal, & P.D. Pearson (Eds.). *Handbook of reading research* (Vol. 2) (pp. 453-489). Mahwah, NJ: Lawrence Erlbaum Associates.
- Belanger, P., Winter, C., & Sutton, A. (Eds.). (1992). *Literacy and basic education in Europe on the eve of the 21st century*. Strasbourg: Council of Europe.
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). New York: Greenwood Press.

- 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.
- Campbell, R. (1995). The importance of the teacher. In P. Owen & P. Pumfrey (Eds.). *Children learning to read: International concerns* (Vol. 1) (pp. 126-136). London: Falmer Press.
- Chall, J. (1983). *Stages of reading development*. New York: McGraw-Hill.
- Christenson, S. L. (1992). Family factors and student achievement: An avenue to increase students' success. *School Psychology Quarterly*, 7, 178-206.
- Clay, M. (1991). *Becoming literate: The construction of inner control*. Auckland: Heinemann.
- Cramer, E., & Castle, M. (Eds.). (1994). *Fostering the love of reading: The affective domain in reading education*. Newark, DE: International Reading Association.
- Creighton, D. C. (1997). Critical literacy in the elementary classroom. *Language Arts*, 74, 438-448.
- Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson, P. D. (1991). Moving from the old to the new: Research on reading comprehension and instruction. *Review of Educational Research*, 61, 239-264.
- Ehri, L. (1995). The emergence of word reading in beginning reading. In P. Owen & P. Pumfrey (Eds.). *Children learning to read: International concerns* (Vol. 1) (pp. 9-31). London: Falmer Press.
- Elley, W. B. (1992). *How in the world do students read?* The Hague, Netherlands: IEA.
- Elley, W. B. (Ed.). (1994). *The IEA study of reading literacy: Achievement and instruction in thirty-two school systems*. Oxford, England: Elsevier Science Ltd.
- Gadsden, V. L. (2000). Intergenerational literacy within families. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.). *Handbook of reading research* (Vol. 3) (pp. 871-888). Mahwah, NJ: Lawrence Erlbaum Associates.
- Gambrell, L. B., & Almasi, J. F. (Eds.). (1997). *Peer talk in the classroom: Learning from research*. Newark, DE: International Reading Association.
- Goldman, S. R., & Rakestraw, J. A. Jr. (2000). Structural aspects of constructing meaning from text. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.). *Handbook of reading research* (Vol. 3) (pp. 311-336). Mahwah, NJ: Lawrence Erlbaum Associates.

- Graesser, A. Golding, J. M., & Long, D. L. (1996). Narrative representation and comprehension. In R. Barr, M. L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.). *Handbook of reading research* (Vol. 2) (pp. 171-205). Mahwah, NJ: Lawrence Erlbaum Associates.
- Greaney, V., & Neuman, S. B. (1990). The functions of reading: A cross-cultural perspective. *Reading Research Quarterly*, 25, 172-195.
- Greaney, V. (1996). *Promoting reading in developing countries*. Newark, DE: International Reading Association.
- Guice, S. L. (1995). Creating communities of readers: A study of children's information networks as multiple contexts for responding to texts. *Journal of Reading Behavior*, 27, 379-397.
- Guthrie, J. T., & Alvermann, D. E. (1999). *Engaged reading: Processes, practice, and policy implications*. New York: Teachers College Press.
- Hall, K. (1998). Critical literacy and the case for it in the early years of school. *Language, Culture and Curriculum*, 11, 183-194.
- Hiebert, E. H., & Martin, L. A. (2001). The texts of beginning reading instruction. In S. B. Neuman & D. K. Dickenson (Eds.). *Handbook of early literacy research* (pp. 361-376). New York: Guilford Publications.
- Holdaway, D. (1979). *The foundations of literacy*. Sydney, Auckland: Ashton Scholastic.
- Jacobs, G. (1997). *Successful strategies for extensive reading*. Singapore: RELC.
- Johnson, D., & Kress, G. (2003). Globalisation, literacy and society: redesigning pedagogy and assessment. *Assessment in Education: Principles, Policy and Practice* 10, 5-14.
- Kamil, M. L., Intrator, S. M., & Kim, H. S. (2000). The effects of other technologies on literacy and literacy learning. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.). *Handbook of reading research* (Vol. 3) (pp. 771-788). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kurtz-Costes, B. E., & Schneider, W. (1994). Self-concept, attributional beliefs, and school achievement: A longitudinal analysis. *Contemporary Educational Psychology*, 19, 199-216.
- Kirsch, I. S., & Mosenthal, P. B. (1989 1991). *Understanding documents. A monthly column appearing in the Journal of Reading*. Newark, DE: International Reading Association.

- Labbo, L. D., & Kuhn, M. (1998). Electronic symbol making: Young children's computer-related emerging concepts about literacy. In D. Reinking, M.C. McKenna, L. D. Labbo, & R. D. Kieffer (Eds.). *Handbook of literacy and technology: Transformations in a post-typographic world* (pp. 79-92). Mahwah, NJ: Lawrence Erlbaum Associates.
- Langer, J. A. (1990). The processes of understanding: Reading for literary and informative purposes. *Research in the Teaching of English*, 24, 229-259.
- Langer, J. A. (1995). *Envisioning literature*. Newark, DE: International Reading Association.
- Leseman, P. P. M., & de Jong, P. F. (2001). How important is home literacy for acquiring literacy in school? In L. Verhoeven & C. Snow (Eds.). *Literacy and motivation: Reading engagement in individuals and groups* (pp. 71-94). Mahwah, NJ: Lawrence Erlbaum.
- Lipson, M. Y., & Wixson, K. K. (2002). *Assessment & instruction of reading and writing difficulties: An interactive approach* (3rd ed.). Boston, MA: Pearson Allyn & Bacon.
- Lundberg, I., & Linnakyla, P. (1993). *Teaching reading around the world*. Hamburg: IEA.
- Martin, M. O., Mullis, I. V. S., & González, E. J. (2004, May). *Home environments fostering children's reading literacy: Results from the PIRLS 2001 study of reading literacy achievement in primary schools in 35 countries*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- McKenna, M. C. (1998). Electronic texts and the transformation of beginning reading. In D. Reinking, M. C. McKenna, L.D. Labbo, & R. D. Kieffer (Eds.). *Handbook of literacy and technology: transformations in a post-typographic world* (pp. 79-92). Mahwah, NJ: Lawrence Erlbaum Associates.
- McKenna, M. C. (2001). Development of reading attitudes. In L. Verhoeven & C. Snow (Eds.). *Literacy and motivation: Reading engagement in individuals and groups* (pp. 135-158). Mahwah, NJ: Lawrence Erlbaum.
- Mullis, I. V. S., Martin, M. O., Kennedy, A. M., & Flaherty, C. L. (Eds.) (2002). *PIRLS 2001 encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS)*. Chestnut Hill, MA: Boston College.



- Mullis, I. V. S., Martin, M. O., González, E. J., & Kennedy, A. M. (2003). *PIRLS 2001 international report: IEA's study of reading literacy achievement in primary school in 35 countries*. Chestnut Hill, MA: Boston College.
- Mullis, I. V. S., Martin, M. O., & González, E. J. (2004). *International achievement in the processes of reading education: Results from PIRLS 2001 in 35 countries*. Chestnut Hill, MA: Boston College.
- Munn, P. (1995). What do children know about reading before they go to school? In P. Owen & P. Pumfrey (Eds.). *Children learning to read: International concerns* (Vol. 1) (pp. 104-114). London: Falmer Press.
- National Reading Panel (2000, April). *Report of the National Reading Panel: Teaching children to read* (pp. 3.21-3.22). Washington, D.C.: Author.
- Neuman, S. B. (1999). Books make a difference: A study of access to literacy. *Reading Research Quarterly*, 34, 286-311.
- Oakhill, J., Beard, R., & Vincent, D. (Eds.). (1995). Special issue: The contribution of psychological research. *Journal of Research in Reading*, 18 (2).
- Organisation for Economic Cooperation and Development. (1999). *Measuring student knowledge and skills: A new framework for assessment*. Paris: Author.
- Paris, S. G., Wasik, B. A., & Turner, J. C. (1996). The development of strategic readers. In R. Barr, M.L. Kamil, P. Mosenthal, & P.D. Pearson (Eds.). *Handbook of reading research* (Vol. 2) (pp. 453-489). Mahwah, NJ: Lawrence Erlbaum Associates.
- Purves, A. C., & Elley, W. B. (1994). The role of the home and student differences. In W.B. Elley (Ed.). *The IEA study of reading literacy: Achievement and instruction in thirty-two school systems*. Oxford, England: Elsevier Science Ltd.
- Rosenblatt, L. M. (1978). *The reader, the text, the poem: The transactional theory of the literary work*. Carbondale: Southern Illinois University Press.
- Ruddell, R. B., & Unrau, N. J. (Eds.). (2004). *Theoretical models and processes of reading* (5th ed.). Newark, DE: International Reading Association.
- Shanahan, T., & Neuman, S.B. (1997). Conversations: Literacy research that makes a difference. *Reading Research Quarterly*, 32 (2).
- Shapiro, J., & Whitney, P. (1997). Factors involved in the leisure reading of upper elementary school students. *Reading Psychology*, 18, 343-70.

- Snow, C. E., & Tabors, P. (1996). Intergenerational transfer of literacy. In L. A. Benjamin, & J. E. Lord (Eds.). *Family literacy: Directions in research and implications for practice* (pp. 73-79). Washington, D.C.: U.S. Department of Education.
- Stierer, B., & Maybin J. (Eds.). (1994). *Language, literacy and learning in educational practice*. Buckingham: Open University Press.
- Street, B. V. (2001). Literacy empowerment in developing societies. In L. Verhoeven, & C. Snow (Eds.). *Literacy and motivation: Reading engagement in individuals and groups* (pp. 71-94). Mahwah, NJ: Lawrence Erlbaum.
- Taube, K., & Mejding, J. (1996). A nine-country study: What were the differences between the low- and high-performing students in the IEA Reading Literacy Study? In M. Binkley, K. Rust, & T. Williams (Eds.). *Reading literacy in an international perspective* (pp. 67-68). Washington, D.C.: U.S. Department of Education.
- UNESCO Institute for Statistics (1999). *Operation manual for ISCED-1997 international standard classification* (1st ed.). Montreal: UNESCO.
- van der Voort, T. H. A. (2001). Television s impact on children s leisure time reading and reading skills. In L. Verhoeven & C. Snow (Eds.). *Literacy and motivation: Reading engagement in individuals and groups* (pp. 95-121). Mahwah, NJ: Lawrence Erlbaum.
- van Dijk, T. A., & Kintsch, W. (1983). *Strategies of discourse comprehension*. New York: Academic Press.
- Verhoeven, L. (2002). Sociocultural and cognitive constraints on literacy development. *Journal of Child Language* 29, 484-88.
- Wagner, D. A. (1991). Literacy in a global perspective. In I. Lundberg and T. Høien (Eds.) *Literacy in a world of change: Perspectives on reading and reading disability*. Stavanger: Centre for Reading Research.
- Walter, P. (1999). Defining literacy and its consequences in the developing world. *International Journal of Lifelong Education*, 18, 31-48.
- Weaver, C. A., & Kintsch, W. (1996). Expository text. In R. Barr, M.L. Kamil, P. Mosenthal, & P. D. Pearson (Eds.). *Handbook of reading research* (Vol. 2) (pp. 230-245). Mahwah, NJ: Lawrence Erlbaum Associates.
- Weinberger, J. (1996). A longitudinal study of children s early literacy experiences at home and later literacy development at home and school. *Journal of Research in Reading*, 19, 14-24.
- Wolf, R. M. (Ed.). (1995). *The IEA Reading Literacy Study: Technical report*. The Hague, Netherlands: IEA.

## IEA READING RESEARCH

- Binkley, M. Rust, K. & Williams, T. (Eds.). (1996). *Reading literacy in an international perspective: Collected papers from the IEA Reading Literacy Study*. Washington, D.C.: U.S. Department of Education.
- Bos, W., Lankes, E. M., Schwippert, K., Walther, G., & Valtin, R. (Hrsg.). (2003). *Erste Ergebnisse aus IGLU. Schülerleistungen am Ende der vierten Jahrgangsstufe im internationalen Vergleich*. Münster: Waxmann.
- Bos, W., Lankes, E. M., Schwippert, K., Valtin, R., & Walther, G. (Hrsg.). (2004). *IGLU. Einige Länder der Bundesrepublik Deutschland im nationalen und internationalen Vergleich*. Münster: Waxmann.
- Diaconu, D. (2004, May). *The effects of early literacy activities upon reading achievement in grade four in Eastern European countries*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Doupona-Horvat, M. (2004, May). *Reading achievement and school performance*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Elley, W. B. (1992). *How in the world do students read?* The Hague, Netherlands: IEA.
- Elley, W. B. (Ed.). (1994). *The IEA study of reading literacy: Achievement and instruction in thirty-two school systems*. Oxford, England: Elsevier Science Ltd.
- Gustafsson, J. E., & Rosen, M. (2004, May). *The 10-year trend study of reading literacy: A multivariate reanalysis*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Hameedy, M. A. (2004, May). *Bilinguality of home and school in Iran: Conditions and consequences as showcased in PIRLS*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Hansen, K. Y., Rosen, M., & Gustafsson, J. E. (2004, May). *Effects of socio-economic status on reading achievement at class and individual levels in Sweden in 1991 and 2001*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- INVALSI. (2003, May). *Studio IEA ICONA: Rapporto di ricerca*. [www.invalsi.it/ricerche-internazionali/iea-icona/rapporto/RapportoFinaleMaggioICONA.pdf](http://www.invalsi.it/ricerche-internazionali/iea-icona/rapporto/RapportoFinaleMaggioICONA.pdf)
- Johansone, I. (2004, May). *PIRLS 2001 results in the context of the European Union expansion*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.

- Kontogiannopoulou-Polydorides, G., Frogoulis, G., & Basbas, C. (2004, May). *Culturally embedded mapping of students' answers in PIRLS items*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Lucisano, P. (1994). *Alfabetizzazione e lettura in Italia e nel mondo: I risultati dell'indagine internazionale IEA SAL*. Napoli: Tecnolid.
- Lundberg, I., & Linnakyla, P. (1993). *Teaching reading around the world*. Hamburg: IEA.
- Martin, M. O., Mullis, I. V. S., & González, E. J. (2004, May). *Home environments fostering children's reading literacy: Results from the PIRLS 2001 study of reading literacy achievement in primary schools in 35 countries*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Martin, M. O., Mullis, I. V. S., González, E. J. & Kennedy, A. M. (2003). *Trends in children's reading literacy achievement 1991-2001: IEA's repeat in nine countries of the 1991 Reading Literacy Study*. Chestnut Hill, MA: Boston College.
- Moyana, R. (1991). Evidence of students' performance in expository passages and non-mathematical documents: Data from the pilot version of the IEA research study. *Zimbabwe Journal of Educational Research*, 3 (1).
- Moyana, R. (1991). Evidence of acquisition of the reading skill related to comprehension of the narrative passages: Data from the international literacy study pilot testing in Zimbabwe. *Zimbabwe Journal of Educational Research*, 3 (2).
- Moyana, R. (2000). *Reading literacy at junior secondary school level in Zimbabwe*. Harare: University of Zimbabwe Publications.
- Mullis, I. V. S., Martin, M. O., Kennedy, A. M., & Flaherty, C. L. (Eds.) (2002). *PIRLS 2001 encyclopedia: A reference guide to reading education in the countries participating in IEA's Progress in International Reading Literacy Study (PIRLS)*. Chestnut Hill, MA: Boston College.
- Mullis, I. V. S., Martin, M. O., González, E. J., & Kennedy, A. M. (2003). *PIRLS 2001 international report: IEA's study of reading literacy achievement in primary school in 35 countries*. Chestnut Hill, MA: Boston College.
- Mullis, I. V. S., Martin, M. O., & González, E. J. (2004). *International achievement in the processes of reading education: Results from PIRLS 2001 in 35 countries*. Chestnut Hill, MA: Boston College.

- Myrberg, E., & Rosen, M. (2004, May). *The impact of differences in teacher competence on reading achievement in independent and public schools in Sweden*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Ogle, L. T., Sen, A., Pahlke, E., Jocelyn, L., Kastberg, D., Roey, S., & Williams, T. (2003). *International comparisons in fourth-grade reading literacy: Findings from the Progress in International Reading Literacy Study (PIRLS) of 2001*. Washington, D.C.: National Center for Education Statistics.
- Papanastasiou, C., & Froese, V. (2002). *Reading literacy in 14 countries*. Lefkosia, Cyprus: University of Cyprus.
- Pavan De Gregorio, G. (2004). *Studio IEA PIRLS-ICONA. Valutazione e insegnamento della lettura nella scuola elementare*. Rome: Armando Editore.
- Postlethwaite, T. N., & Ross, K. (1992). *Effective schools in reading: Implications for educational planners*. Hamburg: IEA.
- Rosen, M., Hansen, K. Y., & Gustafsson, J. E. (2004, May). *Measures of self-reported reading resources, attitudes, and activities based on latent variable modeling*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Schagen, I. (2004, May). *Multilevel analysis of PIRLS data for England*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Thorndike, R. L. (1973). *Reading comprehension education in fifteen countries. International studies in evaluation III*. Stockholm: Almqvist and Wiksell.
- Tonnessen, F. E. (Ed.). (1993). Special issue on the IEA Reading Literacy Study. *Scandinavian Journal of Educational Research*, 37 (1).
- van Diepen, M., Aarnoutse, C., & Verhoeven, L. (2004, May). *Determinants of reading literacy in eleven countries with high economic status*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.
- Wagemaker, H., Taube, K., Munck, I., Kontogiannopoulou-Polydorides, G., & Martin, M. O. (1996). *Are girls better readers? Gender differences in reading literacy*. Amsterdam: IEA.
- Wolff, U. (2004, May). *Profiles of reading achievement*. Paper presented at the 1st IEA International Research Conference, Lefkosia, Cyprus.



# *APPENDIX A*

## **PIRLS National Research Coordinators Contributors to PIRLS Development**

## Progress in International Reading Literacy Study National Research Coordinators Contributors to PIRLS Development

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Shpresa Petrela

National Assessment and Examination  
Center

**Albania**

Guenter Haider

Austrian IEA Research Centre  
Universität Salzburg

**Austria**

Valerii Ovsyannikov

Department of Education Quality  
Assessment

**Belarus**

Annette Lafontaine

Université de Liège

**Belgium (French)**

Felianka Kaftandjieva

University of Sofia

**Bulgaria**

Francine Jaques

Education Quality and Accountability  
Office

**Canada**

Serge Baillargeon

Ministère de l'Éducation

**Canada**

Hong wei Meng

The China National Institute of  
Education

**China**

Hwawei Ko

Graduate Institute of Learning and  
Instruction

National Central University

**Chinese Taipei**

Iveta Kramplova

Institute for Information on Education

**Czech Republic**

Jan Mejding

The Danish University of Education

**Denmark**

Liz Twist

National Foundation for Educational  
Research in England and Wales

**England**

Meeli Pandis

Tallinn University

Department of Educational Sciences

**Estonia**

Marc Colmant

Ministère de l'Éducation Nationale

**France**

Maia Miminoshvili

National Assessment and Examinations  
Center

**Georgia**

Wilfried Bos

Institut für Schulentwicklungsforschung

University of Dortmund

**Germany**



Knut Schwippert  
Eva Maria Lankes  
University of Hamburg  
**Germany**

Tse Shek-Kam  
The University of Hong Kong  
**Hong Kong**

Péter Vari  
Annamária Szabó Rábai  
National Institute of Public Education  
Centre for Evaluation Studies  
**Hungary**

Brynhildur Scheving Thorsteinsson  
Julius K. Bjornsson  
Institute for Educational Research  
**Iceland**

Bahrul Hayat  
Ministry of National Education  
**Indonesia**

Abdol'azim Karimi  
Ministry of Education  
**Iran, Islamic Republic**

Elite Olshain  
Hebrew University  
**Israel**

Ruth Zuzovsky  
Tel Aviv University  
**Israel**

Gabriella Pavan De Gregorio  
Istituto Nazionale per la Valutazione  
del Sistema Dell'Istruzione  
**Italy**

Jafar Al-Aryan  
Ministry of Education  
**Kuwait**

Antra Ozola  
University of Latvia  
**Latvia**

Aiste Elijio  
Ministry of Education and Science  
**Lithuania**

Bojana Naceva  
Pedagogical Institute of Macedonia  
**Republic of Macedonia**

Abdellah Belachkar  
Ministère de l'Éducation Nationale  
**Morocco**

Mieke Van Diepen  
Expertisecentrum Nederlands  
**The Netherlands**

Nora Gordon  
Centro Civico  
**Nicaragua**

Megan Chamberlain  
Ministry of Education  
**New Zealand**

Finn-Egil Tonnessen  
Ragnar Gees Solheim  
Center for Reading Research  
**Norway**

Krzysztof Konarzewski  
Institute of Psychology  
Polish Academy of Science  
**Poland**

Juan Enrique Froemel  
Marcus Broer  
Evaluation Institute  
Supreme Education Council  
Office of Student Assessment  
**Qatar**

Gabriela Noveanu  
Institute for Educational Sciences  
Evaluation and Forecasting Division  
**Romania**

Galina Kovalyova  
The Russian Academy of Education  
**Russian Federation**

Liz Levy  
Scottish Office  
Education Department  
**Scotland**

New Yi Cheen  
Research and Evaluation  
Ministry of Education  
**Singapore**

Zuzana Lukacková  
SPU–National Institute for Education  
**Slovak Republic**

Marjeta Doupona-Horvat  
Educational Research Institute  
**Slovenia**

Luis Iza  
Department of Education  
**Spain**

Elsie Venter  
University of Pretoria  
**South Africa**

Bo Palaszewski  
National Agency for Education  
**Sweden**

Mathis Behrens  
Insitut de Recherche et de  
Documentation  
**Switzerland**

Laurence Ogle  
National Center for Education  
Statistics  
U.S. Department of Education  
**United States**

Rosemary Moyana  
University of Zimbabwe  
**Zimbabwe**





# APPENDIX B

## Sample Passages, Questions, and Scoring Guides



## Reading for Literary Experience

• PIRLS Example Passage and Questions •

**The Upside-Down Mice**

by Roald Dahl



Once upon a time there lived an old man of 87 whose name was Labon.



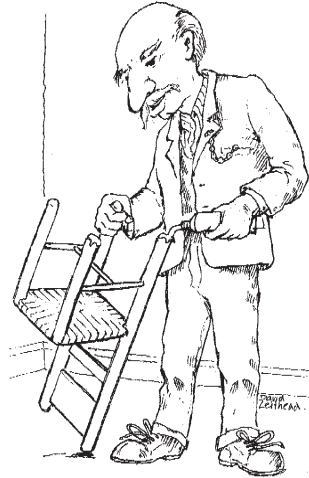
All his life he had been a quiet and peaceful person. He was very poor and very happy.

When Labon discovered that he had mice in his house, it did not bother him much at first. But the mice multiplied. They began to bother him. They kept on multiplying and finally there came a time when even he could stand it no longer.

“This is too much,” he said. “This really is going a bit too far.” He hobbled out of the house down the road to a shop where he bought some mousetraps, a piece of cheese and some glue.

When he got home, he put the glue on the underneath of the mousetraps and stuck them to the ceiling. Then he baited them carefully with pieces of cheese and set them to go off.

That night when the mice came out of their holes and saw the mousetraps on the ceiling, they thought it was a tremendous joke. They walked around on the



floor, nudging each other and pointing up with their front paws and roaring with laughter. After all, it was pretty silly, mousetraps on the ceiling.

When Labon came down the next morning and saw that there were no mice caught in the traps, he smiled but said nothing.

He took a chair and put glue on the bottom of its legs and stuck it upside-down to the ceiling, near the mousetraps. He did the same with the table, the television set and the lamp. He took everything that was on the floor and stuck it upside-down on the ceiling. He even put a little carpet up there.

The next night when the mice came out of their holes they were still joking and laughing about what they had seen the night before. But now, when they looked up at the ceiling, they stopped laughing very suddenly.

“Good gracious me!” cried one. “Look up there! There’s the floor!”

“Heavens above!” shouted another. “We must be standing on the ceiling!”

“I’m beginning to feel a little giddy,” said another.

“All the blood’s going to my head,” said another.

“This is terrible!” said a very senior mouse with long whiskers. “This is really terrible! We must do something about it at once!”

“I shall faint if I have to stand on my head any longer!” shouted a young mouse.

“Me too!”

“I can’t stand it!”

“Save us! Do something, somebody, quick!”

They were getting hysterical now. “I know what we’ll do,” said the very senior mouse. “We’ll all stand on our heads, then we’ll be the right way up.”



Obediently, they all stood on their heads, and after a long time, one by one they fainted from a rush of blood to their brains.

When Labon came down the next morning the floor was littered with mice. Quickly he gathered them up and popped them all in a basket.

So the thing to remember is this: whenever the world seems to be terribly upside-down, make sure you keep your feet firmly on the ground.



*The Upside-Down Mice* by Roald Dahl, 1981, is reproduced by kind permission of David Higham Associates.

**Questions**      **The Upside-Down Mice**

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

(A) He had always hated mice.

\*  (B) There were too many of them.

(C) They laughed too loudly.

(D) They ate all his cheese.

2. Where did Labon put the mousetraps?

(A) in a basket

(B) near the mouse holes

(C) under the chairs

\*  (D) on the ceiling

3. Why were the mice nudging each other and pointing up with their paws when they came out of their holes on the first night?

(A) They could see a chair on the ceiling.

\*  (B) They thought Labon had done something silly.

(C) They wanted the cheese in the mousetraps.

(D) They were afraid of what they saw.

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




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5. What did Labon do after he stuck the chair to the ceiling?

- (A) smiled and said nothing
- (B) bought some mousetraps
- \*  (C) stuck everything to the ceiling
- (D) gave the mice some cheese

6. On the second night, where did the mice think they were standing and what did they decide to do about it?

Where the mice thought they were standing:




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\* correct answer

7. Find and copy **one** of the sentences that show the panic the mice felt on the second night.




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8. How does the story show you what the mice thought was happening?

- (A) by telling you what Labon thought of the mice
- (B) by describing where the mice lived
- \*  (C) by telling you what the mice said to one another
- (D) by describing what the mice were like

9. Why was the floor covered with mice when Labon came down on the last morning?

- \*  (A) The mice had stood on their heads for too long.
- (B) Labon had given the mice too much cheese.
- (C) The mice had fallen from the ceiling.
- (D) Labon had put glue on the floor.

\* correct answer

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




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




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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.




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13. Which words best describe this story?

- A serious and sad
- B scary and exciting
- \*  C funny and clever
- D thrilling and mysterious

14. Think about what Labon and the mice did in the story. Explain what makes the story unbelievable.



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End of this part of the booklet.  
Please stop working.

\* correct answer

## • Scoring Guides for Constructed-response •

### Mice, Question 4

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

Process: Interpret and Integrate Ideas and Information

#### 1 – Acceptable Response

These responses provide an appropriate interpretation of Labon's reaction within the context of the whole story.

Evidence:

The response demonstrates understanding that Labon was not surprised by the empty traps. It may describe Labon's intent to carry out a more elaborate plan for catching the mice.

*Example:*

» He had a plan to fool the mice and get rid of them.

Or, it may demonstrate understanding that he had intended only to fool the mice, not to catch them, on the first night.

*Example:*

» He knew that they would not go for the cheese the first night.

### Mice, Question 6

**On the second night, where did the mice think they were standing? What did they decide to do about it?**

Process: Interpret and Integrate Ideas and Information

#### 2 – Complete Comprehension

These responses connect information from different parts of the text to demonstrate a complete comprehension of how the mice reacted.

Evidence:

The response includes evidence of understanding **both** elements required by the question:

1. the mice thought they were standing on the ceiling; and
2. the mice decided to stand on their heads.

*Example:*

» They thought they were on the ceiling because everything was upside down so they stood on their heads.

### 1 – Partial Comprehension

These responses demonstrate partial comprehension of how the mice reacted.

Evidence:

The response includes evidence of understanding **only one** of the elements required by the question:

1. the mice thought they were standing on the ceiling; or
2. the mice decided to stand on their heads.

Example:

» They decided to stand on their heads.

### Mice, Question 7

**Find and copy one of the sentences that show the panic the mice felt on the second night.**

Process: Make Straightforward Inference

### 1 – Acceptable Response

These responses provide an appropriate sentence from the story from which the panic the mice felt can be inferred.

Evidence:

The response includes at least one of the appropriate sentences from the story listed below. Minor copying errors may be evident but do not alter the meaning of the sentence.

### Appropriate Sentences from the Story From Which the Mice's Panic Can be Inferred

*I shall faint if I have to stand on my head any longer.*

*I can't stand it!*

*Save us!*

*Do something somebody, quick.*

*They were getting hysterical now.*

*This is terrible!*

*This is really terrible!*

*Good gracious me!*

*Look up there!*

*There's the floor!*

*Heaven's above!*

*We must be standing on the ceiling!*

*I'm beginning to feel a little giddy.*

*All the blood's going to my head.*

*We must do something about it at once.*

*They stopped laughing very suddenly.*



## Mice, Question 10

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

Process: Focus on and Retrieve Explicitly Stated Information and Ideas

### 1 – Acceptable Response

These responses accurately identify the action taken by Labon that was explicitly stated in the text.

Evidence: The response states that Labon put the mice in a basket.

## Mice, Question 11

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

Process: Interpret and Integrate Ideas and Information

### 1 – Acceptable Response

These responses demonstrate a plausible interpretation of the mice's character by providing appropriate text-based support for the interpretation.

Evidence:

The response provides a "yes," "no," or neutral position on whether or not the mice were easy to fool.

In addition, the response provides a text-based reason for the position.

The reason either includes appropriate information from the text that dem-

onstrates how easy it was or wasn't for Labon to fool the mice, or it includes an appropriate interpretation of text information.

Example:

» Yes, because they thought they were standing on the ceiling.

## Mice, Question 12

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

Process: Interpret and Integrate Ideas and Information

### 3 – Extensive Comprehension

These responses demonstrate extensive comprehension by integrating text ideas and providing an interpretation of Labon's character.

Evidence:

The response describes **one or more** plausible character traits. In addition, the response provides at least **two** examples of Labon's actions that are evidence of the character trait or traits.

Example:

» He's clever because he let the mice stay until there were too many and then he found a way to confuse the mice. He didn't give the mice the horriblemest death possible. That means he thinks of others.

## 2 – Satisfactory Comprehension

These responses demonstrate satisfactory comprehension by providing an interpretation of Labon's character with appropriate textual support.

Evidence:

The response describes **one** plausible character trait. In addition, the response provides **one** example of Labon's actions as evidence of the character trait.

*Example:*

- » Labon is unusual because he thought of a clever way of catching the mice.

## 1 – Minimal Comprehension

These responses demonstrate limited comprehension of Labon's character.

Evidence:

The response describes **one** plausible character trait inferred from the events of the story, but does not provide an example of Labon's actions as evidence of the character trait.

*Example:*

- » Labon is clever.

Or, the response describes one character trait stated in the text, but does not provide an example of Labon's actions as evidence of the character trait: happy, peaceful, quiet. Note that "poor" is not acceptable.

- » All his life he was a quiet and peaceful person.

Or, the response provides a plausible attitude or desire of Labon's, inferred from his actions, without naming a specific character trait.

- » He likes to fool mice in a really weird way.

## Mice, Question 14

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**Think about what Labon and the mice did in the story. Explain what makes the story unbelievable.**

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Process: Examine and Evaluate Content, Language, and Textual Elements

### 1 – Acceptable Response

These responses accurately evaluate the believability of the story's events or characters.

Evidence: The response describes one or more aspects of the story's events or characters listed below.

### Unbelievable Elements of the Story

Story Events:

*Gluing furniture to the ceiling*

*Going to such trouble to catch mice*

*The mice fainted*

*The mice were fooled*

Characters:

*Mice that talk*

*Mice that stand on their heads*

*Mice that think they are upside down*

*The mice became hysterical*

*Mice that laugh and joke*





## Reading to Acquire and Use Information

## • PIRLS Example Passage and Questions •

# Nights of the Pufflings



by Bruce McMillan

Every year, black and white birds with orange bills visit the Icelandic island of Heimaey. These birds are called puffins. They are known as “clowns of the sea” because of their bright bills and clumsy movements. Puffins are awkward fliers during takeoffs and landings because they have chunky bodies and short wings.

Halla lives on the island of Heimaey. She searches the sky every day. As she watches from high on a cliff overlooking the sea, she spots her first puffin of the season.

She whispers to herself “Lundi,” which means “puffin” in Icelandic.



Soon the sky is speckled with them—puffins, puffins everywhere. They are returning from their winter at sea, returning to Halla’s island and the nearby uninhabited islands to lay eggs and raise puffin chicks. These “clowns of the sea” return to the same burrows year after year. It’s the only time they come ashore.



Halla and her friends climb over the cliffs to watch the birds. They see pairs tap-tap-tap their beaks together. Each pair they see will soon tend an egg deep inside the cliffs. When the puffin eggs have hatched, the parents will bring fish home to feed their chicks. Each chick will grow into a young puffling. The nights of the pufflings will come when each puffling takes its first flight. Although the nights of the pufflings are still long weeks away, Halla thinks about getting some cardboard boxes ready.

All summer long the adult puffins fish and tend to their chicks. By August, flowers blanket the burrows. With the flowers in full bloom, Halla knows that the wait for the nights of the pufflings is over.

The hidden chicks have grown into young pufflings. Now it's time for Halla and her friends to get out their boxes and torches for the nights of the pufflings. Starting tonight, and for the next two weeks, the pufflings will be leaving for their winter at sea.

In the darkness of the night, the pufflings leave their burrows for their first flight. It's a short, wing-flapping trip from the high cliffs. Most of the birds splash-land safely in the sea below. But some get confused by the village lights – perhaps they think the lights are moonbeams reflecting on the water. Hundreds of the pufflings

crash-land in the village every night. Unable to take off from the flat ground, they run around and try to hide.

Halla and her friends will spend each night searching for stranded pufflings that haven't made it to the water. But the village cats and dogs will be searching, too. Even if the cats and dogs don't get them, the pufflings might get run over by cars or trucks. The children must find the stray pufflings first. By ten o'clock the streets of Heimaey are alive with roaming children.

Halla and her friends race to rescue the pufflings. Armed with torches, they wander through the village, searching dark places. Halla spots a puffling. She races after it, grabs it, and puts it safely in a cardboard box.

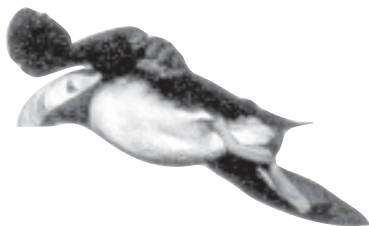


For two weeks all the children of Heimaey sleep late in the day so they can stay out at night. They rescue thousands of pufflings.

Every night Halla and her friends take the rescued pufflings home. The next day, with the boxes full of pufflings, Halla and her friends go down to the beach.

It's time to set the pufflings free. Halla releases one first. She holds it up so that it will get used to flapping its wings. Then, holding the puffling snugly in her hands, she swings it up in the air and launches it out over the water beyond the surf. The puffling flutters just a short distance before splash-landing safely.

Day after day Halla's pufflings paddle away, until the nights of the pufflings are over for the year. As she watches the last of the pufflings and adult puffins leave for their winter at sea, Halla bids them farewell until next spring. She wishes them a safe journey as she calls out, "Goodbye, goodbye."





**Questions**      Nights of the Pufflings

1. Why are puffins clumsy at takeoffs and landings?

- (A) They live in a land of ice.
- (B) They hardly ever come to shore.
- (C) They spend time on high cliffs.
- \*  (D) They have chunky bodies and short wings.

2. Where do the puffins spend the winter?

- (A) inside the cliffs
- (B) on the beach
- \*  (C) at sea
- (D) on the ice

3. Why do the puffins come to the island?

- (A) to be rescued
- (B) to look for food
- \*  (C) to lay eggs
- (D) to learn to fly

\* correct answer

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4. How does Halla know the pufflings are about to fly?

- (A) Parents bring fish to the pufflings.
- \*  (B) Flowers are in full bloom.
- (C) Chicks are hidden away.
- (D) Summer has just begun.

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5. What happens during the nights of the pufflings?

- (A) Puffin pairs tap-tap-tap their beaks together.
- \*  (B) Pufflings take their first flight.
- (C) Puffin eggs hatch into chicks.
- (D) Pufflings come ashore from the sea.

6. What could the people in the village do to stop the pufflings from landing there by mistake?

- \*  (A) turn off the lights
- (B) get the boxes ready
- (C) keep the cats and dogs inside
- (D) shine their torches in the sky

\* correct answer

Questions 7 and 8 ask you to explain how Halla rescues the puffings.

7. Explain how Halla uses her torch to rescue the puffings.




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8. Explain how Halla uses the cardboard boxes to rescue the puffings.




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9. According to the article, which of these is a danger faced by the puffings?

- (A) drowning while landing in the sea
- (B) getting lost in the burrows
- (C) not having enough fish from their parents
- \* (D) being run over by cars and trucks

\* correct answer

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




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11. What do the puffings do after Halla and her friends release them?

- A walk on the beach
- B fly from the cliff
- C hide in the village
- \*  D swim in the sea

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



1.

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2.

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\* correct answer

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




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## Stop

End of this part of the booklet.  
Please stop working.

## • Scoring Guides for Constructed-response •

### Pufflings, Question 7

#### Explain how Halla uses her torch to rescue the pufflings.

Process: Interpret and Integrate Ideas and Information

#### 2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating specific information from the article to explain fully how Halla uses the torch.

Evidence:

The response provides an appropriate explanation for how Halla uses the torch. The explanation includes an explicit reference to rescuing the pufflings as described in the text. In order to be considered a complete explanation, it must indicate that the torch facilitates *finding the pufflings at night* or *locating pufflings that are hiding*.

Example:

» It helps Halla find the pufflings in the dark.

#### 1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying general information from the article to explain how Halla uses the torch.

Evidence:

The response provides an appropriate, but general, explanation for how Halla uses the torch. The explanation is not inconsistent with the text and

may mention that Halla is looking for or finding the pufflings. However, it **does not** include an explicit reference to *finding the pufflings at night* or *locating pufflings that are hiding*.

Example:

» It helps her wander the village.

### Pufflings, Question 8

#### Explain how Halla uses the cardboard boxes to rescue the pufflings.

Process: Interpret and Integrate Ideas and Information

#### 2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating specific information from the article to explain fully how Halla uses the cardboard boxes.

Evidence:

The response provides an appropriate explanation for how Halla uses the cardboard boxes. The explanation includes an explicit reference to rescuing the pufflings as described in the text. In order to be considered a complete explanation, it must indicate that the cardboard boxes facilitate *keeping the pufflings safe* or *transporting the pufflings*.

*Example:*

- » She puts the pufflings in the boxes to keep them safe.

### 1 – Partial Comprehension

These responses demonstrate partial comprehension by identifying general information from the article to explain how Halla uses the cardboard boxes.

Evidence:

The response provides an appropriate, but general, explanation for how Halla uses the cardboard boxes. The explanation is not inconsistent with the text. However, it **does not** include an explicit reference to *keeping the pufflings safe or transporting them*.

*Example:*

- » She puts the pufflings in them.

## Pufflings, Question 10

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

---

Process: Make Straightforward Inferences

### 1 – Acceptable Response

These responses provide an appropriate inference for why the pufflings must be released in the daylight.

Evidence:

The response demonstrates understanding that the pufflings can become confused at night, or that they can see their target more clearly in daylight.

*Example:*

- » If the pufflings were released in the dark, the lights of the village would attract them back there.

Or, the response may focus on the needs of the children in releasing the pufflings by citing specific information from the article that shows why daylight is necessary.

*Example:*

- » It would be hard for the children to see what they were doing at the beach at night.

## Pufflings, Question 12

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

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Process: Interpret and Integrate Ideas and Information

### 2 – Complete Comprehension

These responses demonstrate complete comprehension by integrating ideas from across the text to identify and explain Halla's feelings.

Evidence:

The response identifies **two different feelings** and provides an appropriate **explanation for each feeling**. The two feelings identified may be both positive or both negative, or the two may represent conflicting feelings. The explanation for each feeling draws on different information from the text and is a plausible justification for the feeling.

*Example:*

- » She feels sad to say goodbye to the pufflings. But she is happy that they made it to the water.

### 1 – Partial Comprehension

These responses demonstrate partial comprehension of Halla's feelings.

Evidence:

The response identifies two different feelings. The two feelings identified may be both positive or both negative, or the two may represent conflicting feelings. However, one of the feelings is not supported with appropriate information from the text.

*Example:*

- » She is sad, but also happy that they are rescued.

Or, the response identifies only one feeling, and provides an explanation for that feeling that is based on appropriate information in the text.

*Example:*

- » She is happy that she was able to help them get to the sea.

## Pufflings, Question 13

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

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Process: Examine and Evaluate Content, Language, and Textual Elements

### 2 – Complete Comprehension

These responses demonstrate complete comprehension of the article by supporting a personal evaluation of its content.

Evidence:

The response provides a personal evaluation, supported with one specific piece of information from the text.

*Example:*

- » Yes, it would be fun to take them to the beach.

### 1 – Partial Comprehension

These responses demonstrate complete comprehension of the article by supporting a personal evaluation of its content.

Evidence:

The response provides a personal evaluation that is supported by a generalization of the article's content. The generalization may be based mostly on personal experience, but is related to the article.

*Example:*

- » I would like to help her. I think it is important to save baby birds.







# APPENDIX C

## **Comparison of the Progress in International Reading Literacy Study (PIRLS) and the Programme for International Student Assessment (PISA)**

## Reading Assessment Frameworks

While PIRLS assessed reading at the fourth grade on a five-year cycle, the OECD's Programme for International Student Assessment (PISA) assesses the reading literacy, mathematics literacy, and science literacy of 15-year-olds on a three-year cycle. The first PISA survey was conducted in 2000, with a primary focus on reading. The primary focus shifted to mathematics in 2003, and will shift to science in 2006. Because both studies assess reading internationally, it is important that participants and policymakers understand the relationship between the two studies, and in particular the policy-relevant characteristics that are unique to PIRLS.

PIRLS was designed to provide comparative information on the reading literacy of students in their fourth year of formal schooling, with a particular focus on the factors, at home and in the school, which facilitate the acquisition of literacy in young children. By targeting children of primary-school age and making the acquisition of literacy a principal study goal, PIRLS seeks to complement the work-oriented, across-the-curriculum perspective on literacy offered by PISA. While PISA is concerned with the literacy needs of students as they make the transition from the world of school to the world of work, PIRLS addresses progress at the equally important stage when students move from learning to read to reading to learn.

The skills that form the foundation for later literacy are learned at this time, so that improvements in curriculum or instruction at this stage can be expected to yield great dividends later on. PIRLS plans extensive investigations into the reading curriculum and instructional practices used not just with fourth-grade students, but with students in the earlier grades also. This is in contrast to PISA, which collects little information about curriculum or instructional factors within schools. For countries participating in both studies, therefore, PIRLS will provide a wealth of information that can be used not only to improve the reading curriculum and instruction for younger students, but also to help in interpreting the results of PISA for 15-year-old students.

Although the central goal of both PIRLS and PISA is to inform participating countries about the reading literacy achievement of their students, differences in curricular demands and developmental expectations placed on students at the fourth grade compared to later in their schooling result in a slight difference in emphasis. As students at the fourth grade commonly have just reached the end of their early reading instruction, PIRLS focuses more on the acquisition of reading literacy. In contrast, 15-year-olds typically are preparing to enter the workforce or higher education; thus, PISA examines reading literacy as an indicator of civic and employment preparedness. This nuance of difference in focus demonstrates how the two programs complement each other by addressing the reading literacy development of students at two very different developmental milestones.

Central to both the PIRLS and the PISA assessment frameworks is the definition of the construct being assessed. For both programs, the definition is based on an expanded notion of reading – hence the term “reading literacy” in both cases, rather than simply “reading.” Both definitions include not only the processes and skills of reading comprehension, but also the uses of and attitudes toward reading that characterize proficient readers. Both PIRLS and PISA view reading as an interactive, constructive process and emphasize the importance of students’ ability to reflect on reading and to use reading for different purposes.

For the PIRLS assessment, reading literacy for fourth-grade students is defined as:

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

For the PISA assessment, reading literacy for 15-year-olds is defined as: ...understanding, using, and reflecting on written texts, in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society.

Both definitions take into account the range of material students choose and are required to read. By doing so, they suggest that reading is not a unitary skill, but rather a set of processes, approaches, and skills that vary across readers, text types, and purposes or situations for reading. While social, personal, and curricular elements of reading literacy are also emphasized in both definitions, the developmental differences between the two age groups are apparent here. For fourth-grade students, PIRLS emphasizes the typical environment in which they read. Furthermore, while PISA stresses students' readiness to participate in the larger society, PIRLS emphasizes students' ability to participate in "communities of readers...." (home and classroom).

**Reading Purposes/Situations and Text Types.** In describing the purposes or situations for reading and the types of texts associated with each, the PIRLS and PISA reading frameworks diverge somewhat, reflecting the developmental differences of the two groups. For fourth-grade students, PIRLS emphasizes purposes for reading, describing two of the most common for this age group – reading for literary experience and reading to acquire and use information. For 15-year-olds, PISA describes situations for reading, reflecting the broader uses of reading at this age level – reading for private use, for public use, for work, and for education.

**Processes/Aspects of Comprehension.** Both frameworks describe ways of understanding or responding to texts that provide specifications for the type of comprehension questions posed to students. For PIRLS, these are described as four "processes of comprehension." The PISA framework distinguishes between "macro and micro aspects of understanding text." The five macro aspects are very similar to the PIRLS's four processes of comprehension. As an additional dimension of the PISA framework, the micro aspects are related specifically to the demands of the individual comprehension questions. The following table lists the four PIRLS reading processes and the comparable macro aspects of reading described in the PISA framework. Content of the Assessments. The frameworks for both the PIRLS and PISA assessments call for both multiple-choice and constructed-response

## Comparison of PIRLS Processes of Comprehension and PISA Macro Aspects of Understanding Text

### PIRLS

Processes of Comprehension

#### ***Focus on and Retrieve Explicitly Stated Information*** –

locate and understand relevant information or ideas that are explicitly stated in text.

***Make Straightforward Inferences*** – move beyond surface meaning to make straightforward, text-based inferences.

***Interpret and Integrate Ideas and Information*** – draw on understanding of the world, experience, or other knowledge to find connections between ideas and information in the text.

***Examine and Evaluate Content, Language, and Textual Elements*** – critical consideration of the text; reflect on and evaluate text content; consider and evaluate text structure, language use, literary devices, or author's perspective and craft.

### PISA

Macro Aspects of Understanding Text

***Forming a Broad General Understanding*** – initial reading to determine whether text suits intended goals; consider texts as a whole, make predictions about text.

***Retrieving Information*** – scan, search, locate, and select relevant information.

***Developing an Interpretation*** – develop a more specific or complete understanding; understand interaction between local and global cohesion within text; use information and ideas activated during reading yet not explicitly stated in the text.

***Reflecting on the Content of a Text*** – connect information found in text to knowledge from other sources; assess claims made in text against own knowledge.

***Reflecting on the Form of a Text*** – stand apart from the text and consider it objectively; evaluate text's quality and appropriateness; understand text structure, genre, and register.

questions. Both use single-answer multiple-choice questions that are scored correct or incorrect. In addition, both use partial-credit scoring of at least some of the constructed-response questions, in which partial credit is given to answers that are partially complete and appropriate. For PIRLS, approximately half of the points come from multiple-choice questions; for PISA, it is 55 percent.

In addition to the assessment of comprehension that is central to the two programs, both frameworks discuss the use of questionnaires to collect information on students' exposure to various kinds of print, reading habits and attitudes, and instructional experiences, as well as school characteristics. The PIRLS framework contains a more extensive discussion of these questionnaires and the reasons for including them. This is appropriate, since one of the primary goals of PIRLS is to investigate the factors associated with the acquisition of reading literacy by the fourth year of formal schooling.

This comparison of the PIRLS and PISA frameworks for the assessment of reading literacy demonstrates how two different international consensus-building processes can result in somewhat similar approaches to assessment. At the core of any assessment framework is the definition of the construct being measured. Here the similarities and differences between the two frameworks seem developmentally appropriate. Both view reading as an interactive, constructive process. However, the different societal and curricular expectations for fourth grade students as compared to 15-year-olds are reflected in the discussions of materials, contexts, and behaviors associated with reading literacy. In general, the two frameworks work together in a complementary fashion to illustrate the growth of reading literacy skills at the two age levels.

