

# *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 assesses 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 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 conducts extensive investigations into the reading curriculum and instructional practices used with fourth-grade students. 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.

The central goal of both PIRLS and PISA is to inform participating countries about the reading literacy achievement of their students. However, 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 between the two studies. Since 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 in school and everyday life, 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...." (for example, 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

## 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.

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 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 items are constructed-response; for PISA, it is 45 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 as students progress through school.

