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Assessment Design and Specifications

PIRLS 2011 consists of a wide-ranging assessment of reading comprehension to measure fourth-grade students' reading literacy achievement as well as a series of questionnaires focusing on contexts for reading literacy development to gather information about community, home, and school contexts for developing reading literacy. Conducted on a regular five-year cycle, with each assessment linked to those that preceded it, PIRLS provides regular data on trends in students' reading literacy on a common achievement scale.

By assessing students at the fourth grade, PIRLS provides data that complement TIMSS, IEA's Trends in International Mathematics and Science Study, which assesses achievement at fourth and eighth grades every four years. Each in the TIMSS series of assessments, TIMSS 2011 will be the first TIMSS assessment to have data collection in the same school year as PIRLS, providing a rare opportunity for countries to collect internationally comparable information on reading, mathematics, and science in the same year and on the same students.

Student Population Assessed

PIRLS assesses the reading literacy of children in their fourth year of formal schooling. 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. In many countries also, this is where

1 Countries participating in PIRLS and TIMSS at the fourth grade in 2011 will have the option of administering the assessments to the same students or to separate student samples. Most countries are planning to administer the two assessments to the same students.

ere also will be two scales for processes of reading comprehension:

t S F U ~~S~~ ~~J~~ ~~O~~ ~~F~~ ~~E~~ ~~N~~ B ~~M~~ J H I U G P S X B S E

In PIRLS 2011, similar to PIRLS 2006, the more than six hours of testing time is divided into ten 15-minute blocks of passages and items, labeled L –L for the literary passages and I –I for the informational texts (see Figure 3). Six of the ten blocks were included in previous PIRLS assessments—two in both PIRLS 2001 and PIRLS 2006 and four in PIRLS 2006 only. These “trend” blocks provide a foundation for measuring trends in reading achievement. Four new blocks will be developed for use for the first time in the assessment.

Figure 3 PIRLS 2011 Matrix Sampling Blocks

Similar to PIRLS 2006, the ten blocks of passages and items in the PIRLS 2011 design will be distributed across 10 booklets (see Figure 3). Each student booklet will consist of two 15-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 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 10-booklet design used in PIRLS 2006, test booklets are derived by combining four literary (L1, L2, L3, and L4) and four

informational (I , I , I , and I) blocks in a variety of configurations. In the Reader, the Reader, accounts for the remaining literary block, L , and informational block, I .

In this design, each of blocks L through L and I through I appear in three of the booklets, each time paired with another, different, block. For example, as shown in Figure , literary block L appears with literary block L in Booklet and with informational blocks I and I in Booklets and . Similarly, literary block L appears not only with L in Booklet but also with literary block L in Booklet and with informational block I in Booklet .

The pairing of blocks in Booklets through 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, L and I , are not linked to any other blocks directly. However, because booklet968(w)-27(-112(t)-(g)3(u127(-d)-)18hr (r6)5(\)-1(r)-44ch8prtratrria8pne d32Tvc 11(B)mcu26(s)7(t31(e))JTJ

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

two -minute test blocks, for a total of minutes of testing time per student followed by - minutes for a student questionnaire.

Like PIRLS, prePIRLS strives to replicate an authentic reading experience with materials that are engaging and familiar to students participating in prePIRLS. However, it is sometimes necessary to adapt texts to ensure that the subject matter is age-appropriate,

ensure that students can provide answers to some questions, even if they do not complete the entire passage.

The prePIRLS items use multiple-choice and constructed-response formats, as in PIRLS, though constructed-response items are worth only one or two points. However, there is a slightly higher percentage of constructed-response items in the prePIRLS assessment, comprising up to 10 percent of the total score points. This decision was made because constructed-response items that require a very short response are often easier for early readers due to the lighter reading load, as compared with multiple-choice items that require students to read and evaluate response four options. In addition, multiple-choice items may lose some of their effectiveness in passages as short as those used in prePIRLS, as there are fewer plausible distracters that can be drawn from the text.

Background Questionnaires

An important purpose of PIRLS and prePIRLS is to study the community, home, and school factors associated with children's reading literacy by the fourth grade. To that end, PIRLS and prePIRLS 2011 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. PIRLS and prePIRLS 2011 also will request the National Research Coordinators to complete a curriculum questionnaires for their countries.

Student Questionnaire

A questionnaire will be completed by each student who participates in the PIRLS reading assessment. It asks about aspects of students' home and school lives, including demographic information, home environment, school climate for learning, out-of-school reading behaviors, and attitudes toward reading. The student questionnaire requires 10–15 minutes to complete.

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.

PIRLS 2011 Encyclopedia

The PIRLS 2011 Encyclopedia 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 data on economic and educational indicators 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.