Chapter 3

Developing the PIRLS 2006 Background Questionnaires

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3.1   Overview

A major goal of PIRLS is to examine home and school factors associated with students' reading achievement and the PIRLS framework contains a section addressing the contexts for learning and teaching reading. Because measuring trends in students' reading literacy is an important focus of PIRLS, the PIRLS 2006 contextual framework was similar to the framework used in 2001. This chapter describes the updates made to the *Framework and Specifications for PIRLS Assessment 2001* (Campbell, Kelly, Mullis, Martin, & Sainsbury, 2001) with regard to the contexts for reading, in addition to the changes made to the PIRLS 2001 background questionnaires to be aligned with reporting plans for PIRLS 2006. In particular, a curriculum questionnaire was planned for PIRLS 2006 to collect information about the reading curriculum for primary grades in each of the participating countries to be included in the *PIRLS 2006 Encyclopedia* (Kennedy, Mullis, Martin, & Trong, 2007).

3.2   PIRLS 2006 Contextual Framework

The relationships among the home, school, and national and community environments that help to shape the development of reading literacy among young children are discussed in the *PIRLS 2006 Assessment Framework and Specifications* (Mullis, Kennedy, Martin, & Sainsbury, 2006). The process of

reviewing and updating the contextual framework for PIRLS 2006 began at the first meeting of the National Research Coordinators (NRCs) in September 2003. In general, the NRCs were pleased with the existing PIRLS 2001 framework and specifications and recommended making only minor modifications based on the results from PIRLS 2001, as well as recent issues of interest related to research in reading literacy. The TIMSS & PIRLS International Study Center asked NRCs, and Questionnaire Development Group members, in particular, to submit their comments and suggestions within a few months in order to meet a scheduled publication date of August 2004 for the revised framework set.

The TIMSS & PIRLS International Study Center received from the NRCs and Questionnaire Development Group members the following suggestions for revisions that were incorporated into the PIRLS 2006 contextual framework.

- Expand the section on national and community contexts to include the emphasis on literacy in a country.

- Include more references to the home context, such as home resources and students' literacy activities outside of school.

- Separate school and classroom contexts to differentiate between the influencing factors of these environments.

- Add a section to address homework and both formal and informal assessment of performance in reading within classroom contexts.

- Update references to include current research since PIRLS 2001.

3.3   The PIRLS 2006 Background Questionnaires

In order to measure trends and collect baseline information about key factors related to students' home and school environments, PIRLS 2006 administered questionnaires to students, parents, teachers, and school principals. Additionally, PIRLS 2006 included a newly constructed curriculum questionnaire that provided information about the national context. Based on the contexts for learning to read, as defined in the PIRLS framework, the information from the five questionnaires complements the fourth-grade students' reading achievement results.

- The *Student Questionnaire* collected information about literacy-related activities and resources both at home and in school.

- The *Learning to Read Survey* (home) asked parents or primary caregivers to reflect on literacy-related activities and resources at home and their perceptions of support provided by the school environment.

- The *Teacher Questionnaire* asked about the structure and content of reading instruction in the classroom, as well as within the school as a whole. It also obtained information about the teacher's preparations for teaching reading at the fourth grade.

- The *School Questionnaire* gathered information from the school principal about the school's reading curriculum and instructional policies in addition to the school's demographics and resources.

- The *Curriculum Questionnaire*, newly created in 2006, focused on the nature of the development and implementation of a nationally (or regionally) defined reading curriculum in primary schools within each participating country.

3.3.1 Updating the PIRLS 2006 Background Questionnaires

Updating the PIRLS 2001 background questionnaires for PIRLS 2006 was a collaborative effort among the TIMSS & PIRLS International Study Center, PIRLS 2006 NRCs, the Questionnaire Development Group, and the IEA Data Processing and Research Center (DPC). The process of review and revision began in February 2004, in preparation for the 2005 PIRLS field test. Results from the field-test administration prompted further discussions and refinement of the questionnaires for the PIRLS 2006 data collection.

At the second meeting of the PIRLS 2006 NRCs in February 2004, NRCs thoroughly reviewed the contents of each questionnaire and shared comments about the usefulness of items and response categories, in light of the reporting of trend results for the 2006 survey. In order to minimize the burden on the respondents, NRCs were asked to recommend removing items before adding new ones.

The Questionnaire Development Group met in August 2004 to review drafts of the 2006 questionnaires that incorporated the changes from the previous National Research Coordinator meeting. These draft questionnaires emphasized coverage of questions across the contexts, described in the recently published PIRLS 2006 framework. Another primary objective of the Questionnaire Development Group meeting was to initiate the construction of the *Curriculum*

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Questionnaire. The expert panel worked to define and outline topics that were comparable across the education systems of the participating countries and information which could be readily provided at a national level. This outline was developed with the intention of providing readily comparable facts about each country's curriculum that could be displayed in tables throughout the *PIRLS 2006 International Report*, as well as more detailed contextual information to be used in the *PIRLS 2006 Encyclopedia*.

NRCs met in November 2004 for a final review of the PIRLS 2006 student, parent, teacher, and school questionnaires before the administration of the field test during March and April 2005. In this review, the NRCs recommended minor wording or formatting changes. Since the *Curriculum Questionnaire* would not undergo a field test, NRCs continued its development, based on the Questionnaire Development Group's outline and recommendations.

Following the field-test administration, countries sent data files to the IEA DPC for data cleaning, verification, and formatting before sending the data to the TIMSS & PIRLS International Study Center. The TIMSS & PIRLS International Study Center staff then prepared data almanacs to present the results for the student, parent, teacher, and school questionnaires. For each item in the questionnaire, unweighted statistics were displayed for every country, as well as for the international average. Displays for categorical variables included columns with the percentages of respondents in each category and the corresponding average student reading achievement scores. Displays for numeric variables included the mean, mode, minimum, and maximum values, and selected percentiles. The data almanacs were used by the TIMSS & PIRLS International Study Center, the Questionnaire Development Group, and NRCs to evaluate the performance and quality of the field-test questionnaire items and make suggestions for revisions for the main PIRLS 2006 data collection.

The review of field-test questionnaire data almanacs began with a meeting of the Questionnaire Development Group in July 2005. The Questionnaire Development Group examined item statistics to determine whether the questions seemed to be functioning well across the countries and whether response options were the most advantageous. As a result, the Questionnaire Development Group proposed a few changes to each of the four questionnaires. Typical changes included removing items, rewording or replacing items, and collapsing or expanding response categories. Additionally, there were suggestions for restructuring item placement and layout for better organization and clarity within the questionnaires.

In August 2005, the NRCs convened to review the field-test data almanacs in light of the recommendations by the Questionnaire Development Group. In general, the NRCs agreed to adopt the Questionnaire Development Group's suggestions with modest modifications and rewordings of items and response options. Immediately following the meeting, the TIMSS & PIRLS International Study Center finalized the questionnaires and provided them to the NRCs so that they could begin translation and verification for the PIRLS 2006 data collection.

3.3.2　　Content of the PIRLS 2006 Background Questionnaires

The content of each PIRLS 2006 background questionnaire is summarized below. Exhibits 3.2 through 3.6, which follow the summaries, provide descriptions of the variables within the questionnaires. The variables are grouped and arranged according to their related contextual factors.

Student Questionnaire

Each student in the selected class completed a *Student Questionnaire*. The questionnaire included questions about home resources, languages spoken in the home, students' reading habits both inside and outside of school, students' reading self-concept and their attitudes towards reading, classroom instructional practices related to teaching reading, and school safety.

Learning to Read Survey (Home)

The parents or guardians of each student completed a *Learning to Read Survey*. The questionnaire asked about preparations for primary schooling, including attendance in preschool and literacy-centered activities in the home before the child began school, such as reading books, singing songs, or writing letters or words. Parents answered questions about home resources in addition to information about their highest level of education and employment situations.

Teacher Questionnaire

Teachers of the assessed classes responded to the *Teacher Questionnaire*. The questionnaire focused on reading activities and materials used for reading instruction and the assessment of students' performance in reading. Teachers were asked to refer specifically to the class of students selected for the PIRLS assessment. Teachers also answered questions about their professional preparation and experience in teaching reading.

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School Questionnaire

The principal of each school sampled for PIRLS completed a *School Questionnaire*. Principals answered questions about the emphasis on the reading curriculum in the school, the availability and use of materials to teach reading, and whether the school provided programs and services that involve the students and their families. Additionally, the questionnaire asked school principals general questions about their school's demographic characteristics, resources, and environment.

Curriculum Questionnaire

The National Research Coordinator within each country was responsible for completing the *Curriculum Questionnaire*. Questions primarily centered on the defined national or regional curriculum in fourth grade, including what it prescribed and how it is disseminated. NRCs also answered questions about requirements for teachers and how teachers are informed about the reading curriculum. An addendum to the questionnaire asked about country-level policies regarding entry to primary school as they related to the students tested in PIRLS 2006.

Exhibit 3.2   Content of the PIRLS Learning to Read Survey (Home Questionnaire)

Context	Variable(s)
Student Characteristics	Whether, and for how long, child attended kindergarten (or equivalent)
	Age when child began formal schooling
	Child's literacy skills when he/she began formal schooling
Activities Fostering Literacy	Frequency parents engaged in home literacy activities with child during early childhood
	Frequency parents engaged more recently in home literacy activities with child
Language(s) in the Home	Language(s) spoken by child during early childhood
	Language of early childhood home literacy activities
	Language of present day home literacy activities
	Language of children's books in home
	Language used most often when parents speak with their child
Home–School Connection	Time student spent on homework each day
	Parents' opinion of child's school
Social and Cultural Resources	Time spent by parent reading for him/herself at home each week
	Frequency that parent read for his/her own enjoyment
	Parents' attitudes toward reading
Economic Resources	Perception of wealth relative to others
	Number of books in the home
	Number of children's books in the home

Exhibit 3.3   **Content of PIRLS School Questionnaire**

Context	Variable(s)
School Characteristics	Number of students in school and in grade tested
	Size and type of community in which the school is located
	Percentage of students from economically affluent and disadvantaged homes
	Percentage of students whose first language is not the language of the test and percentage who receive some instruction in this language
	Proportion of students who received free or reduced-price lunch
	Literacy skills of students when they began formal schooling
School Policy and Curriculum	Days per week and year that school was open for instruction
	Total instruction time in a typical day
	Emphasis on language and literacy skills in comparison to other areas of the curriculum
	Whether school had a written statement of the school reading curriculum
	Whether school had a policy to coordinate reading instruction across teachers
	Emphasis on different literacy skills and activities at different grades in primary school
	Whether school had a policy promoting collaboration among teachers
School Environment and Resources	Whether extended instructional time was offered, and if so, how many students participate
	Whether before- or after-school child care was offered, and if so, how many students participate
	Whether provisions were made for students whose mother tongue is not the language of the test
	Number of computers available for instructional purposes
	Material factors affecting school's capacity to provide instruction
	Frequency of scheduled times for teachers to meet and share instructional ideas
	Workspace facilities provided for teachers
	Time principal spent on different tasks and functions
Literacy Resources	Whether school had informal initiatives to encourage students to read
	Whether school had programs for teachers to improve reading instruction
	Emphasis on different types of materials for reading instruction
	Whether school had a library, and the number of books and magazines within it
Community Relations	Availability of literacy and educational programs for students' families
	Frequency of communications with students' families
	Percentage of students' parents who participated in school events
School Climate	Principal's perception of different aspects of school climate
	Principal's perception of the severity of different problems within the school

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Exhibit 3.4   Content of the PIRLS Teacher Questionnaire

Context	Variable(s)
Teacher Demographics	Age and gender
	Total number of years teaching and number of years teaching fourth grade
	Whether teacher worked full time or part time
	Teacher's satisfaction with his/her role as a teacher
Class Characteristics	Number of years the teacher had taught this class
	Number of students in class, and how many of those were in the grade tested
	Teacher's perception of class reading level
	Number of students with difficulty understanding spoken language of the test
	Number of students who needed remedial instruction in reading, and how many of those received it
	Whether enrichment reading instruction was available, and how many students received it
Teacher Training and Preparation	Teacher's highest level of formal education
	Type of teacher certification
	Areas of study during training and formal education
	In-service time spent on reading or teaching reading
	Time spent reading various materials for professional development
	Time spent reading for enjoyment at home
Classroom Environment and Structure	Whether other teachers taught the class for a significant portion of time
	Organization of students for reading instruction
Instructional Materials and Technology	Frequency teacher used different resources for reading instruction
	Frequency teacher used different types of text for reading instruction
	Use of reading instructional materials for students at different reading levels
	Availability of computers and the Internet, and student activities on the computer
	Availability, size, and use of classroom library
	Frequency of use of school library
	Availability of specialists for students who had difficulty with reading
	Where teacher prepares materials for instruction
Instructional Strategies and Activities	Percentage of time spent on different instructional and administrative activities
	Time spent on language instruction in a week
	Time spent on reading instruction in a week, formally and informally
	Frequency of reading instruction and activities
	Frequency of different reading activities with students
	Frequency of different activities after students have read something
	Tasks teacher asks students to complete to develop reading comprehension skills or strategies
	Strategies used if a student begins to fall behind in reading

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Exhibit 3.4   Content of the PIRLS Teacher Questionnaire *(continued)*

Context	Variable(s)
Homework and Assessment	Frequency teacher assigned reading for homework and how much time was expected to be spent on it
	Emphasis placed on assessment sources to monitor students' progress in reading
	Use of different tools to assess students' progress in reading
	Use of portfolios as part of reading assessment
Home–School Connection	Frequency of communication with parents about students' reading progress

Exhibit 3.5   Content of the PIRLS Student Questionnaire

Context	Variable
Student Characteristics	Age and gender
	Whether student and parents were born in country
Literacy Activities Outside of School	Frequency student engaged in different reading activities
	Types of texts that students read outside of school
	Frequency that student borrowed books from a library and the language of these books
Other Activities Outside of School	Frequency of other activities outside of school (e.g., watching television, playing video games)
	Frequency of computer use in various places
	Frequency of Internet use for various purposes
Literacy Activities in School	Frequency of various reading activities in school
	Frequency of various activities after student has read something in class
Languages in the Home	Language(s) that student spoke before starting school
	Frequency student spoke language of the test at home
Home–School Connection	Frequency of reading assigned for homework and time spent on it each day
	Person who helps student most with reading homework
Student Attitudes	Student's attitudes toward reading
	Student's self-concept regarding his/her reading ability
	Student's attitudes toward school
	Student's reports of problematic behavior by other students at school
Economic Resources	Number of books in the home
	The presence of various socio-economic indicators in the home

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Exhibit 3.6   Content of the PIRLS Curriculum Questionnaire

Context	Variable(s)
Demographics and Resources	Age students began primary school
	Number of school days per year
Emphasis on Literacy	Emphasis placed on various reading processes in reading curriculum
	Emphasis placed on various reading purposes in reading curriculum
Governance and Organization of Education System	Highest level of decision-making authority that provides a curriculum covering reading instruction
	Grade-to-grade structure of primary school curriculum
	Whether local authorities had a significant role in reading curriculum development
Curriculum Characteristics and Policies	Year reading curriculum was introduced
	Whether the reading curriculum was being revised
	Whether reading was presented as a part of language instruction or as a separate curriculum area
	Whether the reading curriculum prescribed goals, methods, and materials
	How reading curriculum addressed the issue of students with different levels of ability
	Form(s) in which the reading curriculum was made available to the public
	Total instructional time per week prescribed by curriculum, and percentage devoted to language and reading instruction
	Methods used to evaluate the implementation of the reading curriculum
	Whether there was a policy regarding promotion and retention of students in primary school grades
Teacher Training and Preparation	Requirements and certification process for becoming a primary school teacher
	Whether teachers received preparation on how to teach the reading curriculum in pre-service education
	Help provided to teachers to implement the reading curriculum
	Methods used to communicate changes in reading curriculum to teachers
Home–School Connection	Methods used to communicate changes in reading curriculum to parents

3.4   PIRLS 2006 Encyclopedia

The *PIRLS 2006 Encyclopedia* is a companion publication to the *PIRLS 2006 International Report* (Mullis, Martin, Kennedy, & Foy, 2007), providing a qualitative perspective on the national contexts for reading education. It provides an overview of the characteristics of each participating country, including information collected from the *PIRLS Curriculum Questionnaire*, as well as a detailed chapter for each participant describing reading education. Each NRC was responsible for writing a chapter for the encyclopedia, using an outline provided by the TIMSS & PIRLS International Study Center. The individual

chapters describe organization of the education system (national or regional), provide detail about the reading curriculum for the primary grades, and discuss resources for reading education.

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