

Translating the PIRLS Reading Assessment and Questionnaires

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4.1 Overview

Since English is the working language of IEA studies, the PIRLS reading assessment and background questionnaires were developed in English, and then translated by the participating countries into their local languages of instruction. In all, the PIRLS data collection instruments were translated from English into 31 languages. Five countries administered the assessment in two languages, and seven countries administered one or more questionnaires in more than one language. The languages in which the test was administered most often were English (seven countries), and Arabic (three countries). In translating the instruments, each country followed procedures established by the PIRLS International Study Center (ISC), and described in the *Survey Operations Manual – Main Survey* (PIRLS, 2001).

Before the translated instruments were used in schools, they were put through an exhaustive process of review and verification. This process – managed by the IEA Secretariat in Amsterdam – was intended to ensure that the instruments had been translated accurately and in accordance with the PIRLS guidelines, and that the translated versions were comparable to the originals (in terms of reading difficulty level and accessibility). As an essential component of the verification process, IEA engaged Berlitz GlobalNet (an independent translation company) to review and verify the translation and layout of each country's instruments. Verifiers reviewed the translated instruments and documented any deviations from the international versions in their reports to IEA. National Research Coordinators received a Translation Verification Report that listed

corrections or improvements considered necessary by the verifiers. When all corrections had been completed, the ISC reviewed the revised instruments and gave final approval to the countries to print and administer the materials.

For the participating countries, the bulk of the translation effort took place prior to the field test. After the field test, countries needed only to make any changes to the items or passages that resulted from analysis of the field-test data. The PIRLS data-collection instruments were verified twice – the field-test versions before the field test, and the final versions before the main data collection. Countries, therefore, had the benefit of two careful reviews of their translations. They also had the benefit of diagnostic item statistics from the field-test data analysis, which helped to identify mis-translations that could be corrected before the main data collection.

4.2 PIRLS Instruments to Be Translated

The instruments to be translated included the PIRLS reading assessment (passages and accompanying questions); the student, teacher, school, and learning-to-read survey questionnaires; and the administration manuals. Countries testing in English did not have to translate the instruments, but did need to adapt the American English of the originals to the vernacular, and make whatever adaptations were necessary for cultural reasons. The reading assessment and questionnaires were put through the verification process, but not the administration manuals.

4.2.1 Reading Assessment

The PIRLS reading assessment comprises ten booklets. Each contains two “blocks” of assessment material. A block is composed of a story or an article (referred to as a “passage” in this chapter) and accompanying questions or items. Nine of the assessment booklets comprise two blocks, each with a passage followed by test items. The tenth booklet contains stories and articles in the PIRLS Reader, a magazine-style booklet, in color, designed to create a more authentic reading experience for students. The questions for the Reader are presented in a separate booklet. Each student completes one of the ten booklets.

While there are ten assessment booklets altogether, there are just eight different blocks of assessment material, four for each reading purpose.¹ The eight blocks are systematically distributed across the ten booklets. Most of the blocks appear in three booklets; two blocks appear only in the PIRLS Reader and accompanying question booklet. The ISC provided each country with electronic files containing all of the material to be translated.

Translation of the reading assessment was based on blocks rather than booklets. Countries translated each block once and entered the translated text into the electronic file for the appropriate test booklet(s). In addition to the assessment blocks, the directions included in each of

1 PIRLS assesses students’ reading literacy for two purposes – reading for literary experience and reading to acquire and use information. See Chapter 2 for more information about the PIRLS test.

the ten booklets had to be translated. The directions were the same in each booklet, and thus needed to be translated only once.

4.2.2 Questionnaires

PIRLS administered four questionnaires: to the tested students, their parents, their reading teachers, and their school principals, to gather information about home and school contexts for learning to read.² Each questionnaire contained directions to respondents followed by the questionnaire items. Countries were provided with the electronic files for the questionnaires and entered translated text into the files.

4.3 Translation and Adaptation Guidelines

The survey operations manual developed by the PIRLS ISC provided countries with guidelines for producing a high-quality translation of the instruments and making appropriate cultural adaptations where necessary. These guidelines are summarized in the following sections.

4.3.1 Translating Text

A good translation follows the conventions of the target language and the cultural context while conveying the same essential meaning as the source text. This also is true of good adaptations of the American

English of the international version to the variant of English used in another country or cultural context. More specifically:

- Translated text should have the same register (language level, degree of formality) as the source text.
- Translated text should have correct grammar and usage: subject/verb agreement, prepositions, verb tenses, etc.
- Translated text should neither clarify nor omit text from the source text, nor add information not given in the source text.
- Translated text should contain equivalent qualifiers and modifiers, in the order appropriate for the target language.
- Idiomatic expressions should be translated appropriately, not necessarily word-for-word.
- Spelling, punctuation, and capitalization in the target text should be appropriate for the target language and country/cultural context.

² See Chapter 3 for more detail about the PIRLS questionnaires.

4.3.2 Adaptations in Passages and Items

In order to make valid comparisons, it is important to ensure equivalence of the passages and items across languages. At the same time, it is important to acknowledge that there are differences in expressions across countries, and to incorporate those differences in the translations. Countries were advised to keep modifications to a minimum, but to make changes where necessary and appropriate. In particular, vocabulary, expressions, and names of people and places could be changed.

Countries were allowed to change particular words in a passage or item so that students would not be faced with unduly unfamiliar vocabulary or expressions. At the same time, the new word could not change the meaning or difficulty of the text. The primary concern was to convey the same meaning and style as the source text. In addition, the guidelines called for national conventions (such as measurement units, date formats, and punctuation to be followed). For example, miles could be replaced by kilometers, and quotation marks could be replaced by dashes to indicate dialogue.

The passages in the PIRLS reading test were collected from the countries participating in the study, and represent a range of cultural

contexts. They contain names of characters, real people, and places from around the world. Still, in some instances the names of people and places may have been so unfamiliar to students that they could interfere with reading of the text. Countries were provided with a list of acceptable changes to the names of people and places in the passages. As with changes to vocabulary and expressions, these were not to affect the text in terms of meaning, context, or level of difficulty.

The translation of the questionnaires involved another type of adaptation: there are items in the questionnaires where adaptations were *required*. In the international version of the questionnaires, some items appear with carets (< >) around the text. The text in carets had to be replaced with a country-appropriate term. For example, <country> in the international version was replaced with “Iceland” in the Icelandic version. Questions about the highest level of education parents and teachers had completed were based on the ISCED-1997³ system. Countries were required to replace the generic ISCED terms shown in carets (for example, <ISCED 3>) with country-appropriate names. For example, in the United States, <ISCED 3> was replaced with “high school.” *The Operational Manual for ISCED-1997* (UNESCO, 1999) was provided to

3 ISCED (International Standard Classification of Education) was developed by UNESCO for cross-national comparisons. *The Operational Manual for ISCED-1997*, provided to each PIRLS country, describes the nine levels of education in that system. Each country identified the levels of education that corresponded to the ISCED levels.

countries to help them determine the correspondence between ISCED levels and their specific educational system.

Countries received detailed information about how to adapt each item requiring modification. This information also clarified what information the item was designed to collect – to help translators select the appropriate word or expression.

4.4 Translation Procedures

The *Survey Operations Manual – Main Survey* also detailed the procedure to be followed in each country in translating the PIRLS instruments. This involved identifying the test language, engaging qualified translators, arranging for two independent translations to arrive at one final translation, documenting all adaptations, producing the translated test booklets and questionnaires, and submitting all materials to the IEA for review and verification.

4.4.1 Identifying the Target Language

In most cases, identifying the language to which the instruments should be translated was quite straightforward. Many countries have one predominant language that is used throughout their educational system. In some countries, however, there is more than one major language of instruction, and instruments needed to be prepared in those languages. For example, in Canada, French-speaking and English-speaking schools participated in the assessment, and so both French and English versions of the booklets were prepared. In some countries, one language is taught in schools and other lan-

guages are spoken in homes. In Singapore, for example, students are taught in English, but Chinese, Tamil, and Malay are commonly spoken in their homes. Some countries administered the reading assessment in more than one language, and some countries provided more than one language version of the home questionnaire – for parents for whom the language of the school was not their primary language. For each country, exhibit 4.1 shows the languages used for each PIRLS instrument.

4.4.2 Engaging Translators

The quality of a translation rests primarily on the ability of the translator. Therefore, it is important to hire experienced translators who can accomplish the task. To ensure high-quality translations of the PIRLS assessment and questionnaires, countries were advised to engage translators with the following characteristics:

- An excellent knowledge of English
- An excellent knowledge of the target language
- Experience in the country and cultural context
- Experience with students in the target population
- Familiarity with test development.

To accomplish the task of producing two independent translations, countries were advised to engage at least two translators for each target language.

Exhibit 4.1: Languages in which PIRLS Instruments Were Administered

Country	Language	Test	Student Questionnaire	School Questionnaire	Teacher Questionnaire	Home Questionnaire
Argentina	Spanish	x	x	x	x	x
Belize	English	x	x	x	x	x
Bulgaria	Bulgarian	x	x	x	x	x
Canada (Ontario and Quebec)	English	x	x	x	x	x
	French	x	x	x	x	x
Colombia	Spanish	x	x	x	x	x
Cyprus	Greek	x	x	x	x	x
Czech Republic	Czech	x	x	x	x	x
England	English	x	x	x	x	x
France	French	x	x	x	x	x
Germany	German	x	x	x	x	x
Greece	Greek	x	x	x	x	x
Hong Kong	Modern Chinese	x	x	x	x	x
Hungary	Hungarian	x	x	x	x	x
Iceland	Icelandic	x	x	x	x	x
Iran	Farsi	x	x	x	x	x
Israel	Hebrew	x	x	x	x	x
	Arabic	x	x	--	--	x
Italy	Italian	x	x	x	x	x
	German	x	x	x	x	x
Kuwait	Arabic	x	x	x	x	x
Latvia	Latvian	x	x	x	x	x
	Russian	x	x	x	x	x
Lithuania	Lithuanian	x	x	x	x	x
Macedonia	Macedonian	x	x	x	x	x
	Albanian	x	x	x	x	x
Moldova	Romanian	x	x	x	x	x
	Russian	x	x	x	x	x
Morocco	Arabic	x	x	x	x	x
Netherlands	Dutch	x	x	x	x	x
New Zealand	English	x	x	x	x	x
	Maori	x	x	--	--	x
Norway	Bokmaal	x	x	x	x	x
	Nynorsk	x	x	x	x	x
Philippines ¹	Filipino	x	x	--	--	x
	English	--	--	x	x	--
Romania	Romanian	x	x	x	x	x
	Hungarian	x	x	x	x	x
Russian Federation	Russian	x	x	x	x	x
Scotland	English	x	x	x	x	x
Singapore	English	x	x	x	x	x
	Chinese	--	--	--	--	x
	Malay	--	--	--	--	x
	Tamil	--	--	--	--	x

x indicates that the instrument was administered in that language

-- indicates that the instrument was not administered in that language

1 The Philippines translated the PIRLS instruments into Filipino, but did not complete data collection.

Exhibit 4.1: Languages in which PIRLS Instruments Were Administered (continued)

Country	Language	Test	Student Questionnaire	School Questionnaire	Teacher Questionnaire	Home Questionnaire
Slovak Republic	Slovak	x	x	x	x	x
	Hungarian	x	x	x	x	x
Slovenia	Slovene	x	x	x	x	x
Sweden	Swedish	x	x	x	x	x
Turkey	Turkish	x	x	x	x	x
United States	English	x	x	x	x	x

x indicates that the instrument was administered in that language

-- indicates that the instrument was not administered in that language

4.4.3 Producing Independent Translations

Countries provided their translators with the international versions of the instruments, the PIRLS translation guidelines, and a blank set of Cultural Adaptation Records to document all adaptations. The two translators were each to translate the same document independently, and then come together to reconcile any differences into a single, finalized version. One set of Cultural Adaptation Records recorded adaptations, and was used during the translation verification to evaluate the quality of the translations.

Countries were allowed to add extra questions to the questionnaires – to collect information relevant to their country or educational system, provided the extra questions were included at the end of the questionnaire. These questions, often referred to as “national options,” were to be documented on the Cultural Adaptation Records.

4.4.4 Submitting Materials for External Verification

After translating the test and questionnaires, and producing the booklets in the final layout, countries sent one set of translated and assembled booklets to IEA Headquarters to be verified by Berlitz GlobalNet.

With the exception of six countries (Cyprus, France, Greece, Hong Kong, Norway, and the United States), all countries submitted their instruments for translation verification twice: before the field test, and before main data collection. As those six countries did not participate in the field test, their instruments were verified before the main survey only. For all field-test participants, verification was completed beforehand, and necessary corrections were made before printing instruments. For the main study, due to a tight time schedule, some countries had to print and begin administering the assessment before the verification was completed. For these countries, the results of the international translation verification were used *a posteriori*.

4.5 International Translation Verification

Each country's translated documents went through a rigorous verification process that included verification by Berlitz translators; review by the ISC; and a final check by quality control monitors engaged by the ISC. In addition, item analyses were used to search for any items that had unusual psychometric properties for any country, which could indicate mistranslation.

4.5.1 Process of Translation Verification

IEA Headquarters managed the external verification of the PIRLS instruments. Translators from Berlitz GlobalNet were engaged to review the translated instruments, document all omissions and deviations from the international versions of the instruments, and make suggestions for improvements. Generally, a single verifier reviewed the instruments for each country. However, if a country was administering PIRLS in more than one language, a verifier was engaged for each language. The documentation prepared by the verifiers went to the National Research Coordinators (NRCs) and was used by them to revise their instruments.

The international translation verifiers for PIRLS were required to have the target language as their first language, to have formal credentials as translators working in English, to be educated at the university level, and to live and work in the country for which the verification was carried out.

Verifiers were given general information about PIRLS, together with a description of the translation procedures used by the national centers. They also received detailed instructions for reviewing the instruments and registering deviations from the original versions. The standard package of materials for each verifier consisted of the following:

- The international version of each survey instrument (10 test booklets, 1 Reader, 4 questionnaires)
- One set of translated instruments to be verified
- Cultural Adaptation Records completed by the team that prepared the national version of the instruments
- Instructions for verifying translation and layout of the national version
- Guidelines for translation and cultural adaptation of the instruments (as provided to national translators)
- Blank Translation Verification Records to be used to document verification.

The main task of the translation verifiers was to evaluate the accuracy of the translation, the justification for and adequacy of any cultural adaptations, and the comparability of layout of the survey instruments. The instructions emphasized the importance of maintaining the meaning, difficulty level, and format of the text passages and

related questions in the student assessment, as well as related questions included in each of the four questionnaires. Verifiers were also warned to pay attention to correspondence between the reading passages and the accompanying questions. Specifically, verifiers had to ensure that:

- The translation had not affected the meaning or difficulty of the text
- The questions had not become easier or more difficult when translated/adapted
- No information had been omitted or added in the translated text
- The assessment booklets contained the correct passages and all items
- The questionnaires contained all items
- The order of items placement on the page, and order of response options to items, were the same as in the international version
- Font, font size, paragraph spacing, and margins were the same
- Page order and numbering were the same
- Text placement on the pages was the same
- Graphics looked the same and were placed correctly
- Uses of boldface, shading, italics, etc., was the same.

4.5.2 Translation Verification Records

Translation Verification Records were used by verifiers to register all deviations in each participating country's translated or adapted instruments, including: additions, deletions, mistranslations, and changes in layout. There were separate forms for: assessment booklet directions, each of the eight blocks of assessment material, each of the four questionnaires, and assessment booklet layout and content.

For each form, the verifier completed the form header indicating whether or not deviations were found. If the verifier judged the translated or adapted version to be equivalent to the international version, no further entry was needed. If the verifier judged them to be different, an entry was made in the translation verification form – giving the location of the deviation (page #), the severity of the deviation (using the severity code below), a description of the deviation and a suggested change that would improve comparability. An example form for an assessment block is shown in Exhibit 4.2.

Severity codes were used to indicate the extent to which the translated text or format differed from the international version. The severity codes ranged from 1 (major change or error) to 4 (acceptable change).

- **Major Change or Error:** Examples include: incorrect order of choices in a multiple-choice question, omission of a graphic, omission of a question, incorrect translation resulting in the answer being revealed by the question, incorrect translation that changes the meaning or difficulty of the passage or question, and incorrect ordering of questions.

- **Minor Change or Error:** Examples include: spelling errors that do not affect comprehension, misalignment of margins or tabs, inappropriate changes in font or font sizes, discrepancies in the headers and footers of the document.
- **Suggestion for Alternative:** The translation may be adequate, but verifier suggests a different wording.
- **Acceptable Change:** Change is acceptable and appropriate. For example, a reference to winter is changed from January to July for the Southern Hemisphere.

The completed Translation Verification Records were sent to the NRCs and to the ISC at Boston College. The NRC was responsible for reviewing the report forms and revising the instruments based on the translation verifiers' suggestions. The NRC was not required to accept all recommendations made by the verifier; if a change did not seem warranted or appropriate, the NRC documented the disagreement along with a rationale for not changing the text.

4.5.3 Final Review by the International Study Center

After implementing the suggestions made by the verifier, the NRC submitted the translated assessment booklets and questionnaires to the International Study Center for final review. At the International Study Center, staff examined the translated versions of the instruments, using the Translation Verification Records and any documentation provided by the NRC. Any errors that were identified were reported to

the NRC. When there were no remaining issues to resolve, the NRC could print the booklets and administer the assessment.

4.5.4 Quality Control Monitor Review

As part of the PIRLS quality control program, Quality Control Monitors were engaged by the ISC to visit each country and document the quality of the PIRLS assessment. One of the important tasks for the Quality Control Monitor during the visit was to check the translation of the PIRLS instruments by reviewing the Translation Verification Records alongside the translated instruments actually used in each country – to ensure that changes recommended by the verifier were indeed implemented in the final versions of the translated instruments.

References

Progress in International Reading Literacy Study (PIRLS). (2001). *Survey Operations Manual – Main Survey* (Doc. Ref.: PIRLS 01-0001). Prepared by the International Study Center. Chestnut Hill, MA: *PIRLS International Study Center*, Boston College.

UNESCO. (1999) *Operational Manual for ISCED-1997*. Paris: UNESCO Institute for Statistics.