CHAPTER 5 TRANSLATION AND VERIFICATION OF THE SURVEY MATERIAL

INTRODUCTION

This chapter explains the procedures used for translation, adaptation and verification for both paper-based (PBA) and computer-based (CBA) materials in PISA 2015.

One of the important aspects of quality assurance in PISA is to ensure that the instruments used in all participating countries to assess students' performance provide reliable and comparable information. In order to achieve this, strict procedures for the localization (adaptation, translation and validation) of national versions of all survey instrumentation were implemented in PISA 2015 as in all previous rounds.

These procedures included:

- optimizing the English source version for translation through translatability assessment;
- development of two source versions of the instruments, in English and French (except for the financial literacy and for the operational manuals, provided only in English);
- double translation design;
- preparation of detailed instructions for the localization of the instruments for the Field Trial and for their review for the Main Survey;
- preparation of translation/adaptation guidelines;
- training of national staff in charge of the translation/adaptation of the instruments; and
- validation of the translated/adapted national versions: verification by independent verifiers, review by cApStAn staff and the Translation Referee or the Questionnaires team, countries' post-verification review, 'technical' and linguistic final checks.

DEVELOPMENT OF SOURCE VERSIONS

Translatability Assessment

The *Translatability Assessment* was an effort to combine linguists' expertise with that of item developers to bridge the gap between a draft item written in the source language and an actual source version of that item, suitable for translation/adaptation.

While item writers are increasingly aware of localization issues, they are rarely in a position to identify some of the hurdles translators will be confronted with. In line with the trend to do more upstream work i.e. work before the start of the actual translation process, a methodology was developed to identify and document potential translation and adaptation difficulties in (draft) PISA 2015 items before the source versions were finalized. This process, referred to as *Translatability Assessment*, was implemented for the first time in this cycle of PISA.

The *Translatability Assessment* consists of submitting draft versions of new items to a pool of experienced linguists covering a broad range of language groups. These were selected among the international verifiers and were trained to use a set of 13 translatability assessment categories to report on potential translation, adaptation and cultural issues they might identify. For both questionnaire items and new science items, the items were submitted in batches. The work was organised so that at least three linguists (from different language groups) would comment on each item.

The approach was for each linguist to first mentally translate each item allocated to him/her. When the item appeared straightforward to translate, the category "straightforward" was selected. When the linguist found an item somewhat difficult to translate/adapt or identified a potential cultural issue, s/he went through the exercise of (i) producing a written translation of that item; (ii) selecting the relevant translatability category; (iii) describing the issue; and (iv) proposing an alternative wording or a translation/adaptation note to circumvent the problem. It should be noted that the translations produced in (i) were not intended for further use. They just helped the linguists identify and describe the translation and adaptation hurdles that translators would be facing if no pre-emptive action were taken.

The feedback from the different linguists was then collated by a senior linguist at cApStAn or, in some cases, by the Translation Referee: s/he reformulated the comments so that similar issues were processed in a consistent way; selected or rewrote proposals for alternative wording that addressed all the issues identified and drafted translation/adaptation notes when applicable. When several linguists working in different languages pointed out similar issues in a given item, special attention was given to the wording of that item. The senior linguist produced the *Translatability Report*, which was then sent to the item developers for review. Item developers took this opportunity to eliminate ambiguities, e.g. Anglo-Saxon idiosyncrasies that may be difficult to render in certain languages, double-barrelled questions, cultural issues or unnecessary complexity. Overall, an attempt was made to fine tune the initial version of the items so that it became a (more) translatable source version.

Production of the second source version in French

Since the inception of the survey, it has been a requirement in the PISA Terms of Reference that the international contractor should produce an international French source version of the data collection instruments. Experience has shown that some issues do not become apparent until there is an attempt to translate the instruments. As in previous PISA survey administrations, the English to French translation process proved to be very effective in detecting residual errors overlooked by the test developers, and in anticipating potential problems for translation in other languages. In particular, a number of ambiguities or pitfall expressions could be spotted and avoided from the beginning by slightly modifying both the English and French source versions; the list of aspects requiring national adaptations could be refined; and further translation notes could be added as needed.

The French source version was produced through the double-translation and reconciliation process, followed by a review by a French domain expert, for appropriateness of the terminology, and by a native professional French proof-reader for linguistic correctness. In addition, an independent verification of the equivalence between the final English and French versions was performed using the same procedures and verification checklists as for the verification of all other national versions.

Both the translatability assessment and the development of the French source version contributed to providing NPMs with source material that was easier to translate and contained fewer potential translation problems than would have been the case had only one source been developed without a translatability assessment.

Double translation from two source languages

Back translation has long been the most frequently used way to ensure linguistic equivalence of test instruments in international surveys. It requires translating the source version of the test (generally English language) into the national languages, then translating them back to English and comparing them with the source language to identify possible discrepancies. A second approach is a double

translation design (i.e. two independent translations from the source language(s), and reconciliation by a third person). This offers two significant advantages in comparison with the back translation design:

- Equivalence of the source and target versions is obtained by using three different people (two translators and a reconciler) who all work on both the source and the target versions. In a back translation design, by contrast, the first translator is the only one to simultaneously use the source and target versions.
- Discrepancies are recorded directly in the target language instead of in the source language, as would be the case in a back translation design.

Both back translation and double translation designs have a potential disadvantage in that the equivalence of the various national versions depends exclusively on their consistency with a single source version (in general, English). In particular, one would wish the highest possible semantic equivalence since the principle is to measure access that students from different countries would have to a same meaning, through written material presented in different languages. Using a single reference language is likely to give undue importance to the formal characteristics of that language. If a single source language is used, its lexical and syntactic features, stylistic conventions and the typical patterns it uses to organise ideas within the sentence will have a greater impact on the target language versions than desirable (Grisay, 2003). The recommended approach in PISA therefore builds on the strengths of the double translation approach by using double translation from two different source languages.

Resorting to two different languages may, to a certain extent, reduce problems linked to the impact of cultural characteristics of a single source language. Admittedly, both languages used in PISA share an Indo-European origin. However, they do represent relatively different sets of cultural traditions, and are both spoken in several countries with different geographic locations, traditions, social structures and cultures.

The use of two source languages in PISA results in other anticipated advantages such as the following:

- Many translation problems are due to idiosyncrasies: words, idioms, or syntactic structures in one language appear untranslatable into a target language. In many cases, the opportunity to consult the other source version may provide hints at solutions.
- The desirable or acceptable degree of translation freedom is very difficult to determine. A translation that is too faithful to the original version may appear awkward; if it is too free or too literary it is very likely to jeopardise equivalence. Having two source versions in different languages, with clear guidelines on the amount of translation fidelity/freedom, provides national reconcilers with accurate benchmarks in this respect, which neither back translation nor double translation from a single language could provide.

As in previous PISA cycles, the double translation and reconciliation procedure was a requirement for all national versions of test and questionnaire instruments used in the assessment. It was possible for countries to use the English source version for one of the translations into the national language and the French source version for the other. An efficient alternative method was to perform double translation and reconciliation from one of the source languages, and extensive cross checks against the second source language. Financial Literacy units were double-translated from English only, as there was no French source version of these units.

PISA TRANSLATION AND ADAPTATION GUIDELINES

PISA Translation and Adaptation Guidelines were produced to guide the national teams in the adaptation work of the instruments. The guidelines included:

- Instructions on double or single translation. Double translation (and reconciliation) is required for test and questionnaire materials, but not for manuals, coding guides and other logistic material. In double translation, it is recommended that one independent translator uses the English source version while the second uses the French version. In countries where the NPM has difficulty appointing competent translators from French and English, double translation from English or French only is considered acceptable; in such cases it is highly recommended to use the other source version for cross-checks during the reconciliation process insofar as possible.
- Instructions on recruitment and training.
- Security requirements.
- References to other documents, including technical guides for translating and reconciling computer-based materials.
- Recommendations to avoid common translation traps.
- Instructions on how to adapt the test material to the national context.
- Instructions on how to translate and adapt questionnaires and manuals to the national context.

In addition to the generic translation and adaptation guidelines, the translators and reconcilers were given item-specific guidelines within the monitoring sheets that accompanied the materials throughout the localization process. These guidelines provided help for specific translation and adaptation challenges. The item-specific guidelines were produced based on a thorough review first of the English source, then of the comments arising from the Translatability Assessment and then of those arising from the production of the French source version.

TRANSLATION TRAINING SESSIONS

NPMs received sample materials to use when recruiting national translators and training them at the national level. The NPM meeting held in March 2013 in Bangkok included sessions on the Field Trial translation/adaptation activities in which recommended translation procedures, PISA Translation and Adaptation Guidelines, and the verification process were presented in detail separately for each component of the survey (questionnaires, collaborative problem-solving units, new scientific literacy units, trend units).

TESTING LANGUAGES AND TRANSLATION/ADAPTATION PROCEDURES

NPMs had to identify the testing languages according to instructions given in the School Sampling Preparation Manual and to record them in a sampling form for agreement.

Prior to the Field Trial, NPMs had to fill in a translation plan (describing the procedures used to develop their national versions and the different processes used for translator/reconciler recruitment and training). Information about a possible national expert committee was also sought. This translation plan was reviewed by the Translation Referee for discussion/approval.

Figure 5.1 summarises the Field Trial translation procedures for tests and questionnaires, as described in the confirmed translation plans. The figures in the table include minority language versions that represented less than 10% of the target population and were not verified internationally.

Figure 5.1: Translation Procedures Reported by National Centres in the Translation Plan

	Tests	Questionnaires
Double translation from English and French source versions	20	15
Double translation from English source version with cross-checks against the FRE source version	8*	20*
Double translation from French source version with cross-checks against the ENG source version	1	1
Double translation from English source version only	23	25
Double translation from French source only	1	1
Adaptations in one of the source versions	26	26
Adaptations made in a borrowed verified version or "base" version	34	24

*For the Catalan, Galician (Questionnaires only) and Basque versions, the cross-checks were made against the verified Spanish version of Spain.

Note: The totals do not match between tests and questionnaires, because in the case of the German version, the procedure used was different for New Science and CPS units.

The lower number of questionnaire versions adapted from a verified or base version versus the same number for tests is largely explained by the fact that a Spanish base version of the tests was produced (as described below) but there was no Spanish base version of the questionnaires. Therefore, countries that could adapt the Spanish base version for test units were responsible for translating the questionnaires themselves. Regarding the lower number of questionnaire versions translated from both English and French compared to tests, this is a known trend over all PISA cycles. However, this decrease was amplified for PISA 2015 because the French source version was only made available as a word document; the "online" version was available in English only. Countries therefore preferred to use French for cross-checks only.

As in PISA 2012, when mathematics was the major domain, there is a "domain effect" in the translation procedures compared to PISA 2009 when reading literacy was the major domain. Some countries (e.g. Germany and Norway) that used double translation from both English and French sources in 2009 chose double translation from English source with cross-checks against the French source version in 2015 because they could not find translators from French with good experience in the scientific literacy domain.

Countries sharing a testing language were strongly encouraged to develop a common version in which national adaptations would be inserted or, in the case of minority languages, to borrow an existing

verified version. It has been found in previous survey administrations that high quality translations and high levels of equivalence in the functioning of items were achieved in countries that shared a common language of instruction and could develop their national versions by introducing a limited number of national adaptations in a common version. Additionally, a common version for different countries sharing the same testing language implies that all students instructed in a given language receive booklets that are as similar as possible, which reduces cross-country differences due to translation effects.

Co-operation between countries sharing a same language was therefore fostered and facilitated: workable models were designed so that verified versions from one country could be adapted by a second country.

- As in previous cycles, the model followed by German-speaking countries was (again) highly efficient: the German version of each of the components of the assessment material was double translated and reconciled by one of the countries, then verified, then adapted by the other countries who administered that component. The adapted versions were then verified.

- A Spanish base version of the new test materials was produced by an independent contractor and shared by 7 Spanish-speaking countries (Chile, Colombia, Costa Rica, Dominican Republic, Peru, Spain and Uruguay) – only Mexico opted for an independent translation; Argentina also tested in Spanish but was a paper-based country so did not use the new test materials.

Translation of coding guides for open-ended items was not included in the translation plan because, for PISA 2015, the recommended procedure was to single-translate from one source version with cross-checks against the other. Some countries produced translated coding guides in one national language only (Spain), while some used the English source (Sweden) or French source (Tunisia) without translation.

CENTRALIZED MANAGEMENT OF CHANGES IN TREND

In PISA 2015 a centralised management approach for trend content was implemented for both test and questionnaire materials. The cornerstone of this approach is that all changes to trend content requested by countries went through a strict negotiation process; approved changes were then implemented centrally so that countries did not have editing rights at any stage of the process. This approach prevents unnecessary, undocumented or unverified changes in the trend materials, and thus will allow both more reliable comparability across cycles, and a detailed record of all changes made in trend materials.

MODE EFFECT STUDY (*see chapter 2*)

To enable study of mode effects, all CBA countries (with the exception of Austria, due to a delayed testing window) administered their trend units in both computer-based (CBA) and paper-based (PBA) mode. As part of the centralized trend management process all changes made to the CBA version of a trend unit were also reflected in the PBA version of the same unit, so that consistency between the same unit administered in two different delivery modes could be maintained.

INTERNATIONAL VERIFICATION OF THE NATIONAL VERSIONS

As in previous PISA survey administrations, one of the most important quality control procedures implemented to ensure high quality standards in the translated assessment materials for PISA 2015 was

to have an independent team of expert verifiers, appointed and trained by the international contractors, verify each national version against the English and/or French source versions.

International verification was carried out for all national versions in languages used in schools attended by more than 10% of the country's target population.

The main criteria used to recruit verifiers of the various national versions were that they had:

- native command of the target language;
- professional experience as translators from English or French or from both English and French into their target language;
- as far as possible, sufficient command of the second source language (either English or French) to be able to use it for cross-checks in the verification of the material (note that not all verifiers are proficient in French, but this is mitigated by the fact that the cApStAn reviewer and the translation referee have command of French);
- as far as possible, familiarity with the main domain assessed (in this case, scientific literacy);
- a good level of computer literacy and experience with computer-aided translation tools (CAT tools); and
- as far as possible, experience as teachers and/or higher education degrees in psychology, sociology or education.

A verifier training seminar was held prior to the verification of the Field Trial materials. For those who could not attend the training seminar, webinars were organized. The training sessions focused on:

- presenting verifiers with PISA objectives and structure;
- familiarizing them with the material to be verified, the verification procedures, and the software tools to be used (in particular, the Open Language Tool (OLT) software used for computer-based materials);
- reviewing and extensively discussing the Translation Guidelines and the Verification Checklist;
- conducting hands-on exercises on specially "doctored" target versions in which typical errors (linguistic issues, adaptation issues, or errors related to guidelines not being followed) had been planted;
- arranging schedules and dispatch logistics; and
- security requirements.

Verification procedures have been continually improved throughout each PISA round, based on the experience and learning from previous rounds. In PISA 2015 the change from paper-based delivery mode into computer-based delivery mode also brought changes in the procedures. In the following subsections we review the procedures implemented in PISA 2015 for the different components subject to verification.

VERIFICATION OF NEW COMPUTER-BASED TEST UNITS

Fifteen of the countries in PISA 2015 participated in the paper-based assessment (PBA), while the rest participated in the computer-based assessment (CBA). This was a significant change from PISA 2012 where the main delivery mode was still paper-based.

Computer-based units were translated and verified using the Open Language Tool (OLT) software on XLIFF (tagged XML Localization Interchange File Format) files which were exchanged, previewed and archived on the PISA portal, a web-based platform that allows the files to travel through a predefined workflow.

To perform the verification task, the verifiers were instructed to verify the text segments one by one, comparing the target version appearing on the right side of the OLT interface to the source version appearing on the left side, while consulting previews on the portal and TAS (Test Adaptation Spreadsheet) to see item-specific guidelines and National Centre comments. They made corrections as needed, documenting their interventions in the TAS, including selection of the appropriate intervention category using a drop-down menu.

Once a domain was verified, reviewed and "finalized" on the portal, the Translation Referee was able to download the TAS annotated by the verifier. The referee would then go through each verifier comment, and label as "requires follow-up" any crucial issues that could potentially affect equivalence or item functioning. Changes labeled as "requires follow-up" were negotiated between the referee and the National Centre. The National Centre then uploaded revised XLIFF files on the portal for final check. The final check reviewer checked the correct implementation of any changes "requiring follow-up" and either released the files for layout check and national version construction by the international contractors or released them back to the National Centre for additional corrections.

Since the PISA 2003 Main Survey, the central element and repository of the entire translation, adaptation and verification procedure for test units has been the Test Adaptation Spreadsheet (TAS). Figure 5.2 shows a sample Test Adaptation Spreadsheet from the PISA 2015 Field Trial. The aims of the TAS are to function as:

- an aid to translators, reconcilers, and verifiers (through the increasing use of item-specific translation/adaptation guidelines);
- a centralized record of national adaptations, of verifier corrections and suggestions;
- a way of conducting discussions between the National Centre and the Translation Referee;
- a record of the implementation status of "requires follow-up" in test units;
- a tool permitting quantitative analysis of verification outcomes.

Figure 5.2: Sample of a Test Adaptation Spreadsheet (TAS) from PISA 2015 Field Trial

ENGLISH SOURCE VERSION	ITEM-SPECIFIC TRANSLATION/ADAPTATION GUIDELINE	COUNTRY COMMENT (ADAPTATIONS, DOUBTS,	VERIFIER INTERVENTION	VERIFIER COMMENT	CONSORTIUM REFEREE COMMENT	CORRECTION STATUS	COUNTRY POST-VERIF COMMENT	FINAL CHECK
Refer to "..." on the right. Type your answer to the question.	Recurring instructions	OK	Inconsistency	1st instruction harmonized with SC645, seg 4	Please **make sure** to keep the verifier correction		OK	
			Register/Wording	"Stress builds up ..." translated as "Stress creates..." Verifier thinks translation in the meaning of accumulating/increasing is more appropriate. Changed by ver.	Please keep the verifier correction	REQUIRES FOLLOW-UP	OK	OK

Verification of homolingual versions

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Whenever a country adapted their national version from the English or French source, from the Spanish base version or from a same-language verified version of another country, the resulting national version was verified using a special procedure for these so-called homolingual versions. There were in total 34 national versions that were verified using this process.

The essential difference between the "full" verification of translated national versions and the "focused" verification of homolingual versions is that in the latter, the verification concentrates on the changes made by the country versus the base, source or borrowed version. Automatically created difference reports were used to identify all such changes in a reliable way.

Verification of paper-based test units and booklet shell

Since no new paper-based units were developed for PISA 2015, PBA countries that had participated in cycles 2003, 2006, 2009 and 2012 did not have anything new to translate or adapt. For them, the units only went through the centralized change management process where the country had the opportunity to request corrections to errors, and these – when accepted by the Translation Referee – were then implemented centrally by the verifiers.

Paper-based countries that were new in PISA 2015 or that had not participated in one or more of the relevant cycles had to translate or adapt any units they had not administered before. These were verified following the same process as described above for computer-based materials. The only essential difference was that the verifiers implemented the changes in the MS Word files using the "track changes" functionality, rather than in the online system. The TAS was used the same way as in the computer-based verification.

Verification of questionnaires

Questionnaires were submitted for verification together with an agreed Questionnaire Adaptation Spreadsheet (QAS). The first purpose of the QAS was to document all content-related or 'structural' deviations from the international reference versions. Such national adaptations were subject to clearance by the questionnaire team before the material was submitted for verification. Subsequently, the QAS served the same objectives and followed the same logic as the TAS for test units (see above). Figure 5.3 shows a sample QAS from the PISA 2015 Field Trial.

Figure 5.3: Sample of a Questionnaire Adaptation Spreadsheet (QAS) from PISA 2015 Field Trial

National Centre to complete			Questionnaire Team to complete			Verifier to complete		
8a	8b	9	10	11	12	13	14	15
English translation of the national version	Proposed target version in national language	Justification for proposed changes; national centre comments	Questionnaire team Comments	Recode suggestion or other	Agreement status	Verifier intervention category	Verifier comments	Verified target version
Number of lessons per week in Slovak language	Počet vyučovacích hodín slovenského jazyka a literatúry týždenne				AGREED	OK	Complete translation in 8a should be: "Number of lessons per week in Slovak language and literature." which is the whole correct name of the subject. Considered OK by ver.	
Number of lessons per week in mathematics	Počet vyučovacích hodín matematiky týždenne				AGREED	OK		
Number of lessons per week in school science	Počet vyučovacích hodín prírodovedných predmetov týždenne				AGREED	OK	Adapted as: Number of lessons per week in science subjects. Considered OK by ver.	

The verifiers' brief was defined as checking whether target questionnaires are linguistically correct and faithful to either the source version (when no adaptation is made) or the approved English translation of the national version (when an adaptation is made). With a view to this, verifiers were instructed:

- to check whether the back translation of the agreed adaptation was faithful;
- to check whether the agreed adaptation was correctly reflected in the questionnaire;
- to check the questionnaires for undocumented adaptations (deviations from the source not listed in the QAS) and report them; and
- to check linguistic correctness (grammar, spelling, etc.) of the entire target version.

For the paper-based questionnaires (Student and School questionnaires for countries administering paper-based assessment, Parent Questionnaire for all countries taking this option) verifier interventions were entered in the questionnaires using the track changes mode, while verifier comments were entered in the verifier column of the QAS.

For computer-based questionnaires administered on the QAT (Questionnaire Authoring Tool) platform, the verifier interventions were inserted in the QAS in a separate "Verified target version" column, in addition to documenting the rationale for the change. The verifiers did not have editing access to the QAT. If the change was agreed, the country implemented it in the QAT. In paper-based questionnaires the verifier introduced the changes in the Word files using the track changes functionality, and documented the changes in the QAS.

As for test units, any more significant changes were labeled as "requires follow-up" by the Questionnaire team, and after negotiation with the country teams, their correct implementation was checked by verifiers during final check.

There were no special "homolingual" procedures for the verification of questionnaires since differences in education systems mean that these are very extensively adapted even when sharing a common language. Nevertheless, English and French versions benefited from a co-ordination process similar to the one implemented for test materials. A list of "tips" for verification of questionnaires, including spelling, possibly recurring adaptation issues, and especially errata (errors identified in the source version after release to the countries) and "quasi-errata" (suggestions for improving the source) was maintained, built up, and used in each successive verification.

As in PISA 2012, there was also an increased effort to harmonize the verification feedback for different language versions of questionnaires used in the same country (e.g. German, French and Italian for Switzerland, or the five language versions for Spain). Such versions are by necessity entrusted to different verifiers, but insofar as possible, cApStAn's verification reviewers made a point of reviewing and delivering such versions together, striving to harmonize verification interventions on adaptation issues common to the different language versions.

Verification of coding guides

In PISA 2015 the coding guides were verified separately from the test items, and at a later time. This was necessary since a large number of additions and improvements were made to the master versions after the coder training meetings, long after preliminary versions had been made available to countries. As in PISA 2012 and contrary to cycles before that, the scoring sections were not made available for translation at the time of the unit dispatch. There was one coding guide per trend domain (Mathematics, Science, Reading). For CBA countries, there was in addition one coding guide for New

Science units, and for those countries that opted for Financial Literacy there was a separate coding guide for this domain.

The overall procedure was the same as for paper-based test units: verifier corrections were made in track changes in the MS Word files, and documented in the monitoring sheets in Excel format. For countries that had participated in previous cycles, trend coding guides underwent a similar controlled change request process as the test units.

Main Survey verification

In previous cycles the instruments were revised to some extent between the Field Trial and Main Survey and were then re-verified in this revised form before the Main Survey. In PISA 2015 no changes were made in the master versions after the Field Trial (apart from entire units or items being dropped), and verification consisted of verifying changes that countries requested to their FT instruments, for example based on poor performance or differential item functioning in the FT, or the detection of residual "outright errors" (the latter, in particular, for questionnaires). This process was similar to the centralized change management used to control changes in trend: countries requested changes, and the verifiers implemented centrally those changes that were approved by the Translation Referee. The countries did not have editing access to their units or questionnaires at this stage.

Quantitative analyses of verification outcomes

In PISA 2015 the instruments used to document the verification were designed to generate statistics, thus providing some quantitative data on the frequency of different types of issues identified. The verification statistics by item and by unit yielded information on translation and adaptation difficulties encountered for specific items in specific languages or groups of languages. This type of information, when gathered during the Field Trial gives valuable information on how to avoid such problems in further survey administrations.

This information also makes it possible to detect whether there are items that elicited many verifier interventions in many language groups. When this occurs, item developers would be prompted to re-examine the item's reliability or relevance. Similarly, observing the number of adaptations that the countries proposed for some items may give the item developers additional insight into how difficult it is for some countries to make such items suitable for their students. While such adaptations may be discussed with the international contractors, it remains likely that extensively adapted items will eventually differ from the source version (e.g. in terms of reading difficulty).