CHAPTER 8



Layout verification is the final external review and ratification of each participating country's national assessment instruments and their corresponding National Adaptations Forms. To ensure that the instruments are of the highest quality and are comparable across all of the participating

Participating countries and benchmarking entities prepare national versions of the instruments for the field test and then again for the main data collection. This includes translating and/or adapting the newly developed items and questionnaires in preparation for the field test. Then, changes resulting from the field test are applied to the achievement items selected for the main

National Research Coordinators (NRCs) were directed to document all national adaptations (apart from direct translations) made to the achievement booklets within the achievement booklet National Adaptations Forms. During layout verification, the verifiers also checked the achievement items for international comparability while taking into consideration the national adaptations documented by the NRCs. Any layout deviations or errors, as well as any concerns of international incomparability of assessment items, were documented by the verifiers in the National Adaptations Forms.

Per the <u>TIMSS assessment design</u>, the TIMSS 2015 achievement instruments include blocks of items from TIMSS 2011 and TIMSS 2007. These "trend blocks" provide the foundation for the measurement of change in student achievement over time and therefore must be administered in the same way across subsequent TIMSS cycles. As such, for countries that previously participated in TIMSS 2011 and/or TIMSS 2007, the TIMSS 2015 trend blocks were reviewed during the layout verification against those from the last cycle in which the country participated. Any deviations from the previous cycle were documented by the verifiers within the National Adaptations Forms.

Following layout verification, the National Adaptations Forms containing the verifiers' comments were sent back to the National Research Coordinators for consideration. The National Research Coordinators were asked to confirm that each of the suggested changes was implemented or provide an explanation for not implementing the suggested change.

As with the achievement booklets, the context questionnaires were also checked against the international versions to identify any potential layout issues as well as to ensure the international comparability of the questionnaire data.

In an effort to make the questionnaires general enough for international analyses but appropriate for each intended audience, participating countries were required to adapt certain phrases and designations in the text of the questionnaires. The text that requires country-specific adaptations is enclosed in brackets (e.g., <fourth grade>) in the international instruments. To assist the NRCs in finding comparable and appropriate substitutions for the bracketed text, the TIMSS & PIRLS International Study Center supplied documentation in one of the <u>Survey Operations</u> Units, providing explanations of the intended meaning of each bracketed text, and where applicable, offered examples to guide the National Research Coordinators in selecting appropriate replacements.

National Research Coordinators were directed to document all national adaptations made to the context questionnaires within the National Adaptations Forms. During the layout verification, the verifiers checked the instruments for international comparability, taking into consideration the national adaptations documented by the National Research Coordinators. Any internationally incomparable adaptations or errors were documented by the verifiers in the National Adaptations Forms along with recommendations for recoding or rewording.

Additionally, the verifiers ensured that all bracketed text, requiring country-specific adaptations, was properly documented with English back translations. The documentation for these universally adapted questionnaire items is intended for later use in the National Adaptations Database. The database is a compilation of each country's intended adaptations, to be used during data processing by the IEA Data Processing and Research Center, and the information included in the database is reported as a supplement to the user guide for the TIMSS 2015 International Database.

Similar to the layout verification process for the achievement items, layout verifiers provided the NRCs with feedback through the National Adaptations Forms, and the NRCs were asked to respond to the feedback by either confirming the implementation of the suggested modifications or providing an explanation as to why the changes were not applied.