Chapter 1: OVERVIEW

INTRODUCTION

The OECD Programme for International Student Assessment (PISA) is a collaborative effort among OECD member countries to measure how well 15-year-old students approaching the end of compulsory schooling are prepared to meet the challenges of today's knowledge societies. PISA surveys take place every three years, with the first survey taking place in 2000. Since the inaugural survey year, some 80 countries and economies have participated in this international assessment.

As additional countries and economies have joined PISA, the OECD and a number of partners recognised a need to reflect on the design and implementation of the assessment to cater to a larger and more diverse group of middle- and low-income countries. In response, the PISA for Development initiative was launched in 2013 to further develop the PISA data collection instruments that would produce results to support evidence-based policies and offer a rich set of data for monitoring progress toward the Education Sustainable Development Goal.

PARTICIPATION

Seven countries administered the PISA-D assessment. The participating countries—Cambodia, Ecuador, Guatemala, Honduras, Paraguay, Senegal, and Zambia—were invited to join the project based on their experience and interest in large-scale assessment and the support of development partners.

FEATURES OF PISA FOR DEVELOPMENT

PISA is an age-based survey, assessing 15-year-old students in school in grade 7 or higher. These students are approaching the end of compulsory schooling in most participating countries. The various aspects of the PISA for Development survey relied on a number of technical procedures and considerations:

- The sampling design, including both school-sampling and student-sampling requirements and procedures
- The design of the cognitive assessment and contextual questionnaires
- Guidelines and procedures to help guarantee the equivalence of different languages used within and between the participating countries
- Analysis and scaling of the data and their subsequent reporting
- Quality assurance procedures to help ensure that PISA provides high-quality data to support evidence-based policy formation and decision making.

This report describes the procedures and methodologies as they have been implemented in PISA for Development according to the central design elements of the project.

The content

PISA assesses not only whether students can reproduce knowledge, but also whether they can extrapolate from what they have learned and apply their knowledge in new situations. It emphasises the mastery of processes, the understanding of concepts, and the ability to function in various types of situations. The PISA for Development survey focused on the assessment of three cognitive domains: Reading, Mathematics, and Science. In addition to the cognitive assessment, context questionnaires focused on the student's home, family and school background; school organization and education provision in school; and teaching practices.

The students

Approximately 34,605 students completed the assessment in 2017, representing nearly 1.3 million 15-year-olds in the schools of the 7 participating countries and economies.

The assessment

PISA for Development was administered as a paper-based assessment that included a compulsory assessment of Reading, Mathematics, and Science. A majority of the items in the assessment were selected from previous cycles of PISA. The cognitive test lasted a total of two hours for each student. Students answered a context (background) questionnaire, which took around 35 minutes to complete. The background questionnaire focused on information about the students, their homes, and their school and learning experiences. School administrators also completed a questionnaire that covered the school system and learning environment. Additionally, teachers within the participating schools completed a 20-minute questionnaire that covered information about the teachers and their classroom and school learning environments.

MANAGING AND IMPLEMENTING PISA FOR DEVELOPMENT

PISA for Development is implemented within a framework established by the PISA Governing Board (PGB), which includes representation from all participating countries and economies at senior policy levels. The PGB establishes policy priorities and standards for developing indicators, for establishing assessment instruments, and for reporting results.

An International Advisory Group made up of government officials from participating countries, representatives of active development partners, institutional partners on methods and technical approaches, invited experts, and representatives of the OECD was established for PISA for Development to provide advice on the priorities to be considered regarding analytical, methodological, and policy frameworks, and ensure that the outputs of the project were relevant to a wider audience of the international educational community.

The OECD Secretariat was responsible for the overall management of PISA for Development. It monitored its implementation on a day-to-day basis, served as the secretariat for the PGB and the PISA-D International Advisory Group, fostered consensus building between the countries and economies involved, and served as the interlocutor between the PGB and the international contractors.

Experts from participating countries and economies served on working groups linking the programme policy objectives with the best internationally available technical expertise in the assessment areas and in the areas that were included in the contextual questionnaires. These expert groups were referred to as the Subject Matter Expert Groups (SMEGs) and the Questionnaire Expert Group (QEG). By participating in these expert groups and regularly reviewing outcomes of the groups' meetings, countries and economies ensured that the instruments were internationally valid, that they took the cultural and educational contexts of participating countries and economies into account, that the assessment materials had strong measurement potential, and that the instruments emphasised authenticity and educational validity.

Each of the participating countries and economies appointed a National Project Manager (NPM) to implement PISA nationally. The NPMs ensured that internationally agreed common technical and administrative procedures were employed. These managers played a vital role in developing and validating the international assessment instruments ensured that PISA implementation was of high quality. The NPMs also contributed to the verification and evaluation of the survey results, analyses, and reports.

The design and implementation of the surveys, within the framework established by the PGB, is the responsibility of external contractors. For PISA for Development, the overall management of contractors and implementation was carried out by Educational Testing Service (ETS) in the United States. The OECD Secretariat worked closely with the international Project Director, Ann Kennedy of ETS, to co-ordinate all aspects of implementation.

Additional tasks related to the implementation of PISA for Development were carried out by ETS as well as by five additional contractors.

- Pearson (United Kingdom) developed the assessment frameworks.
- ETS (United States) led the instrument development, scaling, and analysis with co-operation from cApStAn Linguistic Quality Control (Belgium) for linguistic quality control. HallStat SPRL (Belgium) served as the translation referee.
- Survey operations and sampling were implemented by Westat (United States).
- The Learning Bar (Canada) carried out the development of the questionnaire frameworks and questionnaire development.

PISA FOR DEVELOPMENT PUBLICATIONS

This Technical Report describes the technical aspects of the project at a level of detail that enables the review and, potentially, replication of certain implemented procedures and technical solutions to problems. The results of the study are published separately within individual national reports produced by each of the countries' National Centre teams. The OECD's PISA for Development website (http://www.oecd.org/pisa/pisa-for-development/) includes a set of working papers and blogs, as well as a series of PISA for Development Briefs that highlight various aspects of the project.