NEWSLETTER

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IN THIS ISSUE

EDITORIAL

Showcasing our Research

By **DIRK HASTEDT**, Executive Director of the IEA

Over the last six decades, the IEA has successfully built a robust reputation as a leader in worldwide educational research studies. Our work has fostered international discussion of educational standards, and prompted the development of IEA activities in differing areas, designed to better support international research, and facilitate the dissemination and analysis of our data. This newsletter showcases some of these developments, and, in particular, to mark the 20th anniversary of the establishment of IEA's Data Processing Center in Hamburg, Germany, elaborates on aspects of its infrastructure and some of the interesting projects the Center has been working on.

None of this would have been possible without the continuing support of IEA's study centers, the countries participating in IEA studies, and the dedication and drive of the national research centers, as well as the support from our donors and the cooperation of organizations involved with the IEA. I thank the marvelous staff at the IEA and the many people engaged in IEA activities worldwide.

Please check out our new
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Committed to Ensuring High-quality Data for Educational Research

TWENTY YEARS OF THE IEA DPC

By **HEIKO SIBBERNS** AND **ORIANA MORA**, IEA, Hamburg

Lifelong learning has become a key factor for economic prosperity, personal growth, and active participation in society. It is essential to understand the ways in which educational systems, as well as societies, impact individual learning over the course of the lifespan.

However, which factors influence successful teaching and learning? Where to start when trying to further promote and strengthen literacy within specific countries, as well as worldwide? To help answer such questions, scientists can depend on the integrity of the high-quality data prepared by the IEA Data Processing and Research Center (DPC).

Situated in Germany (Hamburg), the IEA DPC processes the data of international IEA studies such as TIMSS, PIRLS and ICCS. It also carries out studies for both national and international scientific institutions. Clients in Germany include the Leibniz Institute for Educational Trajectories with the National Education Panel Study (NEPS), and the Institute for Educational Quality Improvement (IQB), for which several studies in the context of educational monitoring have been completed. International projects include the Regional Project on Child Development Indicators (PRIDI), launched by the Inter-American Development Bank.

The IEA DPC often takes on the role of contractor and adviser, namely providing guidance on: how to construct an item in order to enable efficient computer-aided data collection; which sampling size is required to allow for a specific test design; and what a schedule for conducting a study in fifty countries would look like. Due to its professional knowledge and competencies, the IEA

DPC staff is able to promptly offer suggestions about the best course of action for a variety of survey methods.

Based on its considerable experience in educational research, the IEA DPC has developed many procedures to ensure efficient handling of all stages of a survey. In the area of data management, the completed test booklets and questionnaires are scanned using high-performance scanners. Markings in multiple-choice answer fields are recorded automatically using pre-defined data entry masks, and then converted to data. Open-ended answers are stored as image files and coded later. The IEA DPC has developed proprietary coding software that incorporates quality control procedures and helps economize on data management steps. Generally, the client will receive a high-quality data record not later than three months after assessment administration has been completed.

However, it is not only within the IEA DPC that quality management aspects are considered an important part of survey operations. Even from the initial field testing stages, all parties are provided with guidelines to ensure that test preparation and test administration follow the same procedures worldwide. Any necessary or possible changes to procedures are discussed and documented. IEA DPC offers guidelines and manuals to our contact persons in participating institutions, including written instructions for test administra-tors. When coordinating international studies, additional manuals for national research coordinators cover topics such as sampling, preparation of instruments, field operation and data collection, and

verification. In combination with further measures such as training sessions and workshops, written guidelines ensure standardization of procedures and coordinate phases of survey implemen-tation, guaranteeing the international comparability of survey results.

In the context of international studies, it is also essential to ensure comparability of survey instruments over cultural and linguistic differences. Therefore, the IEA DPC supports the development of inter-national survey instruments and their adjustment for specific studies. This often means computer-assisted adaptation of paper-and-pencil items for technology-based surveys, such as eTIMSS and ePIRLS. The software for this task is cur-rently being developed at the IEA DPC.

The IEA DPC's extensive experience in large-scale assessments means it is recognized as a competent and trusted partner in statistical data analysis, including variance estimation and weighting, hierarchical linear modeling, and structural equation modeling. Knowledge gained from such work will increasingly be used for tasks in the context of policy counselling and program evaluation. IEA's RandA Unit will take the first step toward achieving this goal, based on their expertise in developing policy briefs and thematic reports grounded in IEA data.

**For further information
on IEA DPC services, please consult
http://www.iea-dpc.de/iea-dpc/services.html**

The IDB Analyzer

By **EUGENIO GONZALEZ**, IEA-ETS Research Institute

One of the biggest challenges when analyzing large-scale assessment data is to take into account the design characteristics of the assessment. There are three main issues that pose a challenge to users of these data: use of sampling weights, and calculation of sampling and measurement variance to conduct proper significance testing. While SAS (Statistical Analysis System) and SPSS (Statistical Package for the Social Sciences) code was developed for this purpose in the early 1990s, and published in user guides, using this code required the user to have sophisticated programming knowledge of either SAS or SPSS.

In response to this need, the IEA developed the first version of the International Database (IDB) Analyzer in 2005: a graphical user interface that allows the user to generate SPSS code to properly merge, combine and analyze data from IEA studies, specifically TIMSS and PIRLS. At the time, the basic functions of the IDB Analyzer included calculation of means, percentages, and linear regression coefficients. The IDB Analyzer was capable of calculating sampling variance using the JK2 approach as implemented in TIMSS and PIRLS.

Now, 10 years and many iterations later, the IDB Analyzer has the capability of calculating means, percentages, percentiles, correlations, linear and logistic regression, differential item functioning, and the percent of people meeting achievement benchmarks. When calculating linear and logistic regression equations, it can automatically implement a wide variety of coding of categorical variables, allowing the user to choose the coding and reference grouping on a variable by variable basis. A full listing of the capabilities of the IDB Analyzer and compatible studies can be found in the Help Manual available with the software.

The application can be used to analyze data from all studies in the current IEA and Organisation for Economic Co-operation and Development (OECD) portfolios, and can calculate sampling variance using the JK1, JK2 and BRR approach of replication. Further, it can use different numbers of plausible values in the calculation of measurement variance, and it has the option of using only the first (shortcut), or all plausible values (no shortcut) for the calculation of the sampling variance.

The IDB Analyzer is widely used around the world to analyze large-scale assessment data. Over 100 people are trained annually by the IEA in the use of the IDB Analyzer, while many others download the software and teach themselves by following the instructions outlined in the Help Manual.

Plans for further development of the IDB Analyzer include, in the near future, the development of the capability to work with SAS files, and in the not too distant future, the establishment of the capability to generate R code to analyze these types of data.
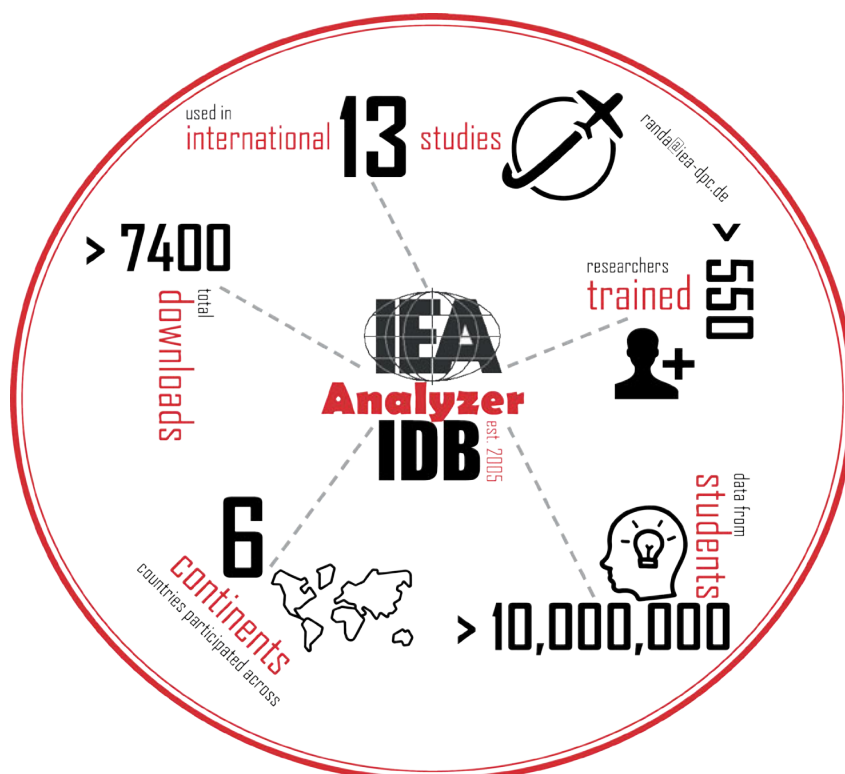
Questions about the capabilities of the IDB Analyzer can be directed to RandA@iea-dpc.de. You can download and install the latest version of the IDB Analyzer from: http://www.iea.nl/data.html.

The list of abstracts with papers with IEA data for the first and second quarter of the year 2015 is now online. For more information visit http://www.iea-dpc.de/units/research-and-analysis-unit-randa.html

IT Infrastructure at the IEA DPC

By **JOCKEL WOLF**, IEA, Hamburg

PHOTO: MR EDUARDO HONORATO, IEA, HAMBURG

Mr Jockel Wolf working on the IEA DPC's servers.

The IEA Data Processing and Research Center (DPC) hosts the IEA's central information technology (IT) infrastructure for (1) staff working in Hamburg, (2) national and international partners, and (3) conducting various online assessments.

(1) Local IT services in Hamburg are delivered through a local powerful redundant network with more than 25 switches that connects 50+ servers, 200+ clients, 50+ laptops, 25+ printers and five high performance scanners. A multitude of server services is offered by the Information and Communication Technology Services unit, including, but not limited to, domain administration, central storage and backup, SQL-databases, collaboration solutions, proactive monitoring, planning and controlling, internet/web services, and antivirus/malware protection. The servers run both Microsoft Windows Server and Ubuntu Linux. Wherever feasible, the architecture is redundant, either in clustered setups or hot-/warm-standby designs. Both IEA DPC staff and sub-contracted staff, such as test administrators and coders, can access the necessary parts of the infrastructure from outside the premises through secure connections.

All connected clients run Microsoft Windows 7 Enterprise and come with a variety of software, such as Microsoft Office, statistical software packages (e.g., SAS, SPSS, Stata, R), development suites, PDF tools, editors, project planning tools, security suites, and a wide range of tools covering specific needs of IEA DPC staff. Operating system and software deployment, updates and virus-/malware-protection are administered and controlled for with central tools, guaranteeing an up-to-date secure desktop environment for all users.

High-performance scanners are integrated into the network to scan and process images from test material as the required input for both national and international studies. Besides many office printers, three high-performance production printers are used to print large amounts of study-related material in-house, such as manuals and test booklets.

A completely separate data protection network has been set up to process sensitive data in alignment with data protection laws. This is physically disconnected from both the internet and the local network. Specifically designed procedures for working in this environment, such as documentation of all data transfer to and from this network, ensure that all compulsory regulations are adhered to.

(2) To enable collaboration with external partners, both national and international, servers are hosted for collaboration platforms (such as Microsoft SharePoint), data exchange (FTP, SharePoint, WebDAV), planning and controlling (Microsoft Project), and study-related specific environments (e.g., for translation of test items or tracking of national adaptations).

(3) Finally, the trend towards computer-based assessments (CBA) and online testing is supported by a highly available server infrastructure, ensuring the capacity to develop, administer and deliver large-scale assessments, as well as the collection of the resulting data. The IEA DPC also provides sets of up to 120 so-called 'CBA laptops' with system setups specifically tailored for each study to facilitate computer-based assessments nationally. Last, but not least, test administration and coding are supported by centralized technology platforms.

Servers are hosted both internally at the DPC and at a number of providers' data centers. Local servers are hosted in an energy-optimized data center with air-conditioned racks and a modular uninterruptible power supply system. Backups of all data are maintained and archived regularly. To secure IT service continuity in case of a disaster, a second backup-server room remains on standby with redundant servers for the most crucial services, enabling the high availability mandatory for the IEA DPC. Servers with internet access are hosted in a so-called demilitarized zone, structuring the network into different security areas. The import/synching of sensitive external data into the DPC is achieved by a two-hop process, effectively shielding the local infrastructure from the internet. Connectivity is guaranteed through redundant internet connection lines. Redundant next-generation firewalls efficiently monitor and secure all network traffic between the different zones and the internet.

External servers are located in certified data centers run by reliable providers, with an established track record of offering high availability and high levels of security.

The availability and performance of the whole (i.e., internal and external) IT infrastructure is monitored centrally with proactive reporting of issues, enabling early reaction to irregularities and fast solutions.

Data Protection Measures "On the Move"
IDENTIFYING TRENDS IN EDUCATIONAL RESEARCH

By **JOANA SCHWENCK**, IEA, Hamburg

Over recent years, there has been a distinct development toward studies that either combine paper-and-pencil assessments with computer-based data collection, or concentrate exclusively on computer-based assessments (CBA). In addition, national studies in Germany are increasingly focused on (multi-cohort) longitudinal studies conducted over periods of several months or even years. Such changing trends create issues that are of substantial significance for data protection. CBA offer various possibilities for gathering data of diverse qualities and dimensions: they may not only consist of answers given to questions in a test booklet or questionnaire (as in paper-and-pencil assessments), but also include data on the respondent's eye movement or writing behavior, or even visual or audio recordings. Furthermore, it is considerably more challenging to safely transfer (electronic) CBA data from one (virtual) place to another, for example from the data collection point to the location of data processing. Data collected for longitudinal studies need not only to be stored safely for longer periods of time, but moreover matched across different measure points and survey participants. It may be necessary to collect not only pseudonymous data, but also names and addresses, for example to enable student contact should the student leave school in the course of the study. These trends require the development of suitable organizational processes, while also placing special demands on data protection.

WHICH DATA ARE TO BE PROTECTED?

Any discussion of data protection means talking about personal data, defined as data that enables the user to draw conclusions about private individuals (e.g., students, parents, teachers, and/or school principals participating in an educational study). Personal data may only be collected, processed and made use of if the German Federal Data Protection Act (*Bundesdatenschutzgesetz, BDSG*) or any other legal provision permits this, or if the individual whose data is to be collected, processed, and made use of has given her or his explicit permission for the undertaking.

Personal data, as it usually is collected and processed in educational studies, may be subdivided into three categories: data collected pseudonymously, data gathered in an uncoded way (e.g., contact data, see above), and, finally, so-called *sensitive data* (e.g., health data or data on ethnic or racial origins); the last, according to the BDSG, is in need of special protection measures.

HOW DOES THIS IMPACT EDUCATIONAL RESEARCH?

As such trends in educational research lead to the gathering of greater quantities and more diverse qualities of personal data, increasing consideration needs to be given to data protection measures, and their implementation. Thus, on the one hand, data protection *on the move* means never ceasing to adapt to social, legal, technological, scientific developments, while, on the other, it means always questioning whether measures that were perfect for one study are also suitable for the next. Beyond that, it is vital to actively question and identify which data are essential to achieving project goals, and be aware that captured data may include specific kinds of personal data that demand special protection. And, although each study's focus naturally lies on the purpose of research (as opposed to data protection), the principle of proportionality has to be followed in every research study: data protection requirements always have to be weighed against research needs.

WHAT CAN THE IEA DPC DO FOR YOU?

Mediation between research and data protection issues is what we consider one of our important tasks when conducting educational studies. Our general data protection expertise in connection with data collection and data processing, as well as our long-term experience in collaborating with the German Ministries of Education and with the Data Protection Commissioners in all 16 Federal States (for surveys undertaken in Germany) makes the IEA DPC uniquely equipped to offer support and advice on data protection issues to scientific and public institutions preparing and conducting international and national educational surveys.
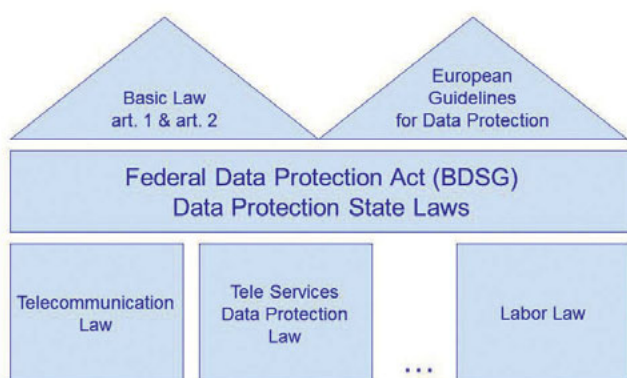
Overview of laws governing data protection in Germany.

PRIDI
STUDY PREPARATION, ORGANIZATION, IMPLEMENTATION, AND COORDINATION

By **SEBASTIAN MEYER**, IEA, Hamburg

At the beginning there is an idea, a research interest shared by educational researchers and policy makers within a country, a region, or even worldwide. The goal is to gain information, to obtain profound insights on a matter that does not seem to be sufficiently explored. Subsequently, the initial research interest evolves into a study design that, depending on the scale and the scope of the study, usually aims at the collection of high quality, policy relevant and comparative data on the situation of the group of people who are the focus of the study. Such data enable researchers to benchmark progress within the borders of the target population, region-wide, or worldwide. Generating high quality data involves following scientific procedures and methods to ensure the data collected are representative and allow for cross-country comparative analyses. The IEA dedicates its expertise primarily to the preparation, organization, implementation, and coordination of international educational studies, building on more than half a century of experience in this field. One of the IEA's core activities is the design, implementation and management of educational projects, such as The Regional Project on Child Development Indicators (PRIDI) study. PRIDI was launched in 2009 by the Inter-American Development Bank, and successfully finalized with the release of the International Database and an acclaimed press release in 2014. The Inter-American Development Bank employed the IEA as project consultants and financially supported the study.

PREPARATION
Study preparation is crucial, because these early activities determine eventual success. Before going into the field, several tasks are required, such as:

- Drawing samples;
- Instrument development and design;
- Test administration and scoring training; and
- Providing clear survey operations activities procedures and manuals.

For PRIDI, the IEA developed a sampling manual that ensured the IEA's high quality standards while accounting for the study-specific demands and desires of our partners. The IEA provided communication, training seminars, and all manuals in Spanish, the main test language in all four participating countries (Costa Rica, Nicaragua, Paraguay, and Peru). The IEA also helped with the survey instrument designs and conducted data management training in Spanish.

ORGANIZATION
A reliable organizational structure is vital when conducting an international study. For PRIDI, the IEA assumed responsibility for the processing of all data, providing a clean and user-friendly international database, including a user guide and the IEA International Database (IDB) Analyzer. The IEA computed Rasch-scores and weights, advised on the assembly of the International Database, including its documentation, and contributed to the International Report.

IMPLEMENTATION
Successful study implementation needs clear guidelines, standards, and proper data collection training. For PRIDI, data were collected via interviews and practical assignments given to children aged between two and five years. Manuals and training sessions guided field workers through the process of how to identify eligible children and conduct the interviews. The study was divided into three phases: pilot, field test, and main data collection.

COORDINATION
Successful international studies require a well-conceived schedule, and a close and trustful working relation among all stakeholders involved. It is vital to establish a cohesive group. The IEA took responsibility for the sampling and data management for PRIDI. While study coordination was largely achieved through email and telephone conferences, personal meetings were invaluable.

The IEA is proud of its contribution to PRIDI's success.

In the spirit of continuing collaboration between the Inter-American Development Bank and IEA, Dirk Hastedt and Héctor Salazar, Manager of the Social Sector at the Inter-American Development Bank, signed a memorandum of understanding for future cooperation on projects.

For more information and access to the PRIDI reports and data:
Visit the study's homepage at http://www.iadb.org/en/topics/education/pridi/

Going Digital: the IEA e-Assessment System

By **DAVID EBBS**, IEA, Amsterdam

To keep up with the digital age IEA has developed the IEA e-Assessment System. It is an online platform for the creation, development, and administration of assessments. The goal of the system was to contain all the software required for the development through scoring of data for an assessment (e.g., item creation and development, assessment assembly, translation and adaptation of text, verification of translations and layout, data collection monitoring, and scoring). Currently functional systems contained with the IEA e-Assessment System include: Assessment Designer, Translation System, Data Monitor, and Scoring System.

The Assessment Designer system allows users to create items/questions and assemble the created items into blocks and booklets. To create an item, users are given a large selection of templates to choose from for the initial creation of items/questions. After the items/questions are created, modification and review options are possible. After an item/question has completed review and been flagged for use, it can then be assigned to an assessment booklet or questionnaire. Most of the templates for traditional items/questions used by IEA studies have already been incorporated into the system, and the remaining templates are currently under development. In anticipation of the future of assessment administration, the Assessment Designer system has been built and developed to accept the addition of further templates, allowing for new types of items/questions that could be administered using electronic media.

The functionality of Translation System covers the procedures of translating and adapting the text of an assessment, translation verification of national materials, and layout verification of the national version of the assessment. With regards to the translation and adaptation procedures, the system allows the National Research Center staff to view, adapt, and translate the assessment text online. Upon completion of the translation and review by the national centers, trained translation verifiers receive access to the

In the photo (L–R): Ievgen Kosievtsov (Software Unit) and Ekaterina Mikheeva (International Studies Unit) from the IEA DPC, Hamburg, and author, David Ebbs.

text for review and verification. All changes, comments, and suggestions proposed by the verifiers are recorded and displayed in the system for review by the international and national centers. In addition, the verification of the layout of the national assessment materials can be performed from within the Translation System.

As the name suggests, the Data Monitor system allows users to observe and monitor the progress of data collection during an assessment's administration. After the data is uploaded into the system, users can view multiple variables of the raw data to check for completeness. In addition, users can add documentation to the raw data, flagging any irregularities, inconsistencies, and/or duplicate records that might have occurred during the assessment's administration or upload of data. When the documentation has been completed, the raw data can be sent for processing.

Also contained within the IEA e-Assessment System is the Scoring System. This system was designed to enable the national centers to perform the processes of item scoring in an online environment. Currently the system allows the national centers to assign accounts to scorers, assign responses to scorers, track the progress of scoring, and review scored items. The scorers are only able to review and score responses that are assigned to them. If needed, a scorer has the ability from within the system to flag any response for additional review.

Each of the mentioned systems has been developed in cooperation with individuals from the TIMSS and PIRLS International Study Center at Boston College, IEA DPC, and the IEA Secretariat. The Assessment Designer is being used in the conversion of IEA traditional paper and pencil assessments to electronic format. The Translation System, Data Monitor, and Scoring System are currently being used for IEA ePIRLS, and the developers are reviewing suggestions for future improvements provided by the PIRLS National Research Centers.

Measurement of Global Dimensions of Citizenship and Sustainability Education: IEA's Consultancy Work for UNESCO

By **RALPH CARSTENS**, IEA, Hamburg

The Muscat Agreement (UNESCO, 2014) identified Global Citizenship Education (GCED) and Education for Sustainable Development (ESD) as critical components of the post-2015 development agenda, expressed as Target 4.7 of the United Nations' Sustainable Development Goals (SDGs): "*By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development*" (United Nations, 2014).

The inclusion of GCED and ESD as means towards the development goals implied the need for indicators to enable monitoring of progress at the global, regional and national levels. Thus, in 2014, UNESCO established an Experts Advisory Group (EAG) and a sub-group focusing on measurement issues. The EAG helped during the development of GCED related topics and learning objectives (UNESCO, 2015), and assisted in identifying key learning outcomes, which could serve as priorities for measurement. The global citizenship education working group of the Learning Metrics Task Force (LMTF) decided to align its efforts with this framework. IEA analysts contributed throughout this process.

Following a competitive tender process in late 2014, UNESCO commissioned the IEA to carry out a study and suggest a list of potential indicators for GCED and ESD for post-2015 monitoring. IEA analysts proposed an extended list of potential indicators, reflecting both learner characteristics and key

contextual aspects, and selection criteria for a smaller set of indicators, which were both presented at the World Education Forum (WEF) in May 2015. As a result of the study and the IEA-UNESCO cooperation, a revised set of seven indicators was submitted to the cross-organizational Extended Technical Advisory Group on Education Indicators (TAG), co-chaired by UNESCO and the UNESCO Institute for Statistics (UIS), for consultation. The goal is to submit a final set of indicators for use and review by the EFA Framework for Action and United Nations Statistical Committee processes in October/November 2015.

Our support for UNESCO's work toward post-2015 education goals builds on IEA's experience and expertise in studying civic knowledge and citizenship education among children around the globe (Schulz, Ainley, Fraillon, Kerr, & Losito 2010), which was recently extended to include global and sustainability concepts, aspects and survey materials. We are proud to be involved in this vital global mission and will continue to explore options for future collaboration on these and related data needs with UNESCO.

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From left to right: An informal snapshot of Ralph Carstens, IEA Hamburg, Irina Bokova, Director-General of UNESCO, and Anu Toots, Tallinn University, at a recent reception.

Haiti 2015 Pre-pilot Assessment

WORKING WITH PARTNERS TO SUPPORT EDUCATIONAL DEVELOPMENT

by **CLARA BEYER**, IEA, Hamburg

The country of Haiti, the poorest in the Western Hemisphere, in which 80% of the population lives under the poverty line (CIA World Factbook 2015), was devastated by the 2010 earthquake which destroyed much of the capital city of Port-au-Prince and surrounding areas. In recent years, it became clear to the Haitian Ministry of Education that data on the baseline levels of primary school students in the subject domains of mathematics and reading comprehension were needed in order to further develop and advance the Haitian educational sector.

The IEA was contracted to develop a reading and mathematics test to be used as a starting point for the development of a suitable assessment tool for the implementation of a national assessment of fourth grade student competencies in Haiti. The goal was to help the Haitian Ministry of Education in achieving improved educational policy starting in preschool and early education, focusing on literacy and numeracy. The IEA also helped develop a background questionnaire, appended to the test itself, designed to gather important contextual information on students, parents, and schools to augment achievement data obtained from the test itself.

The IEA met with Haitian Ministry of Education and Inter-American Bank representatives in Port-au-Prince in February of 2015 to discuss test development. Figuring first and foremost in these discussions was the overarching goal of sustained Haitian capacity-building in the areas related to assessment administration and development. At this time, it was decided that the best way to begin laying groundwork for a high-quality national assessment was to initiate a pre-pilot phase, planned for the month of May. The "pre-pilot" label implies the planned next phases of the project: a field test and main data collection phase, which are still in development.

The IEA, as explicitly stated in its mission statement, pledges to "develop and improve the capacity of education systems to engage in national strategies for educational monitoring and improvement." In this context, this took the form of: selection of items for the pre-pilot math and reading test; provision of a sample of schools; assistance in the development of assessment administration quality control measures; data entry software development and training; resultant analyses of the data; and recommended next steps.

ASSESSMENT DESIGN
To accommodate the wishes and goals of the Haitian Ministry of Education officials and stakeholders, as well as

Inter-American Development Bank representatives, weekly telephone meetings were conducted after the initial February conference to shape the pre-pilot assessment design. Several assessment parameters were thus defined by consensus, including:
- Sample design and size (provided by the IEA)
- Target grades (4th and 6th grades)
- Language of test (French and Creole, alternated)
- Content of Test Administration Manual (provided by the IEA)
- Assignment of roles and administration tasks

TEST DEVELOPMENT
In April of 2015, IEA and IERI representatives met with Haitian Ministry of Education representatives and other stakeholders in Port-au-Prince to select items for the test from a pool of released items that had been used and tested internationally in past IEA studies. The resultant test used released items from TIMSS 2007 and 2011, and TIMSS Numeracy 2015 for the mathematics portion, as well as Trends in Reading Literacy items for the reading portion of the test. All were translated into French and Creole for the Haitian context.

A student background questionnaire was also developed during the item selection seminar in order to provide data on important contextual factors.

Once all items were chosen by the item selection committee, the test was compiled and designed by the IEA and sent to the country for printing.

TEST ADMINISTRATION
With decades of experience in the successful administration of international large-scale educational assessments, the IEA was able to offer valuable insight and provide advice on quality control measures for test administration and data collection.

Test administration in a school in the Artibonite Department (district), Haiti

IEA representatives participated in a test administration seminar prior to the test, and provided a test administration manual and training materials for translation and internal use by test administrators, school principals and monitors. The IEA also developed auxiliary instruments in the form of Student Tracking Forms and Test Administration Forms, which allowed test administrators to enter feedback and student background information and participation status for later analysis.

IEA representatives conducted school visits on the day of testing to observe test administration on the ground.

DATA COLLECTION AND ANALYSIS

Data entry software was developed by the IEA and provided to internally-selected Haitian data entry personnel, who were also trained to use the software by the IEA.

Based on the gathered data, the IEA provided the Haitian Ministry of Education and the Inter-American Development Bank two reports containing analyses, observations, and recommended next steps. Discussions are ongoing; therefore information on the next phases will be forthcoming.

In all, over 4000 student records were collected and entered for analysis. The pre-pilot phase should be considered a marked success and an example of the IEA's ability to apply learned best practices and expertise to a wide range of forward-thinking international studies.

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6th IEA International Research Conference

24–26 JUNE 2015, CAPE TOWN, SOUTH AFRICA

The 6th IEA International Research Conference (IRC-2015) was organized in cooperation with the University of Pretoria in South Africa. The conference program included three keynote lectures and a number of paper presentations reporting on a wide range of secondary research using data from IEA studies.

The conference was preceded on 22–23 June 2015 by a series of training workshops: "Introduction to IEA Databases and IDB Analyzer," "Using HLM with International Large-Scale Assessment Data," "Assessment Designs, Item Response Theory, and Proficiency Estimates," and "Using the IEA International Datasets for Informing Policy and Practice."

Within the conference, session 5B was the result of a long-standing fruitful collaboration between the IEA and the European Commission in the field of civic and citizenship education, following on from a successful international research seminar held in Rome in December 2013.
Papers from this stimulating session will appear in a European Commission/ Joint Research Centre scientific report, available by the end of September 2015. Please contact Dr Maria Magdalena Isac at mariamagdalena.isac@gmail.com for further information.

Local Organizing Committee from the Centre for Evaluation & Assessment, University of Pretoria. From left: Mr Gabriel Mokoena, Ms Nelladee Palane, Mrs Karen Roux, Dr Caroline Long, Mrs Sandra van Niekerk, Ms Thembisile Matlou, Prof. Sarah Howie (Chair), Mrs Rosalie Loots, Mr Thamsanqa Ncube, Ms Celeste Combrinck, Mr Mishack Tshele and Mr Stefan de Jager

Please consult the IEA website for a synopsis of the conference program, and full text downloads of the keynote addresses and workshop materials. Selected papers from the conference will appear in a special conference issue of the IERI journal Large Scale Assessments in Education, guest edited by Professor Sarah Howie.

Upcoming Thematic Publications and Future Calls for Proposals

In autumn 2015, the IEA will release the first in a new series of in-depth thematic reports based on IEA data, published in association with Springer Netherlands. IEA study data are an important source of information for researchers and policy makers, and can be used to shed light on pressing questions concerning educational policies and educational research. The goal of the series is to provide examples of good analysis of IEA data, and to enhance knowledge about today's education systems worldwide. The volumes will be shorter in length (100–150 pages), and more focused and accessible than the international study reports. This will make them a useful source of information for researchers, interested educators, and policy makers. All reports will have a clear research focus and topic.

The first report is based on secondary analysis of the IEA's Progress in International Reading Literacy Study (PIRLS) data, and aims to deepen understanding of the influence of home supports for learning on student achievement. Written by researchers at the University of Twente, *Psychometric Framework for Modeling Parental Involvement and Reading Literacy* promises to be a valuable addition to the growing research on the impact of parental involvement in education, exploring the relationship between dimensions of parental involvement and student reading literacy across countries, while taking cultural differences into account. This report should make a significant contribution to a field where cross-cultural comparisons from a triangulated perspective are sparse.

This will be quickly followed, in spring 2016, by a second thematic report investigating the roles of teachers and teaching in education and their relationship to student outcomes, compiled by a talented research group at the University of Oslo.

Call three, announced in August 2015, focuses on perceptions of school safety and the school environment for learning, and whether these influence student learning outcomes. The full tender specifications and requirements are available at our website under **call no. IEA 03/08-2015**. Proposals will be reviewed on the basis of methodological quality, research and policy relevance, and budget.

Beginning 2016, the IEA aims to issue two calls for thematic reports per year, in the first week of January and the first week of August. The submissions will undergo a thorough review process and the best proposal will be awarded the contract for a series volume.

Follow the IEA on Twitter for first alerts on publication release dates.

Recent IEA Publications

Fraillon, J., Ainley, J., Schulz, W., Friedman, T., & Gebhardt, E. (2014). *Preparing for Life in a Digital Age: The IEA International Computer and Information Literacy Study International Report*. Cham: Springer. ISBN: 978-3-319-14221-0

Fraillon, J., Schulz, W., Friedman, T., Ainley, J., & Gebhardt, E. (2015) *ICILS 2013 Technical Report*. Amsterdam: IEA. ISBN: 978-90-79549-30-6

Jung, M., & Carstens, R. (Eds.) (2015) *ICILS 2013 User Guide for the International Database*. Amsterdam: IEA. ISBN: 978-90-79549-29-0

Mullis, I.V.S., & Martin, M.O. (Eds.) (2015) *PIRLS 2016 Assessment Framework*. Second edition. Chestnut Hill, MA: IEA & TIMSS & PIRLS International Study Center, Boston College. ISBN: 978-1-889938-28-8

The IEA policy briefs address issues of particular interest to policymakers based on secondary analysis of data from IEA's studies. If you are interested in collaborating on an upcoming policy brief, please contact the IEA Data Processing and Research Center's Research and Analysis Unit (RandA) at randa@iea-dpc.de. In 2015, the IEA released the following policy briefs (see http://www.iea.nl/policy_briefs.html):

- Advanced Academic Performance: Exploring Country-Level Differences in the Pursuit of Educational Excellence
- Is the "Net Generation" Ready for Digital Citizenship? Perspectives from the IEA International Computer and Information Literacy Study 2013
- Socioeconomically Disadvantaged Students who are Academically Successful: Examining Academic Resilience Cross-nationally

- Is Teacher Experience Associated with Mathematics Achievement?

To order IEA publications, contact department@iea.nl; these may also be downloaded free of charge at http://www.iea.nl/publications.html. Please send announcements of national publications to the IEA Secretariat for inclusion in forthcoming issues of the newsletter. PIRLS 2011, TIMSS 2011, and TEDS-M reports can also be obtained at https://www.wbv.de/en/book-editions/iea.html.

Connecting Colleagues

As a leading entity in the field of education, IEA strives to meet the expectations of its global network of colleagues, researchers, educators, and policy makers. IEA draws on the world-class research reputation of its members, participants, and international study centers, relying on meaningful contributions and collaborations to convey empirical comparative knowledge and advance high quality research in education.

Armed with this understanding, IEA is committed to ensuring effective communication and stakeholder engagement. The association recently commenced the development of an internal communications and outreach plan to garner further recognition, visibility and support for its large-scale assessments in education worldwide. IEA plans to stay top-of-mind by sharing interesting information and positioning itself as the go-to institution for the latest developments in the field of educational research.

This new approach will help IEA better communicate its organizational goals, which are (1) to engage effectively with stakeholders, (2) demonstrate the success of IEA's work, (3) ensure audiences understand what IEA does, and (4) support countries in bridging the gap between research and policy.

LinkedIn and Twitter were selected as the preferred online platforms by IEA's new Communication Task Force (CTF). These communication tools will help IEA enhance its international network; share important news about its studies, training programs, and global projects; and help gauge international interest and potential partnerships in education.

All interested parties and stakeholders are encouraged to connect with the IEA on social media for news, events and

Save the Date

After the stimulating and enjoyable 6th IEA International Research Conference (IRC) in Cape Town, South Africa, we are pleased to announce that the 7th IEA IRC will be held at the historic Charles University in Prague, beautiful capital of the Czech Republic, 28–30 June 2017, preceded by workshop events on 26–27 June 2017. The conference will be organized jointly by the Faculty of Education Institute for Research & Development of Education of Charles University, the Czech School Inspectorate, and the IEA. Follow the IEA on LinkedIn or Twitter for first alerts.

activities. IEA kindly invites you to take a look and follow its company page on LinkedIn and Twitter.

We hope that all colleagues will enjoy discovering new ways to connect with the Association and each other.

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