IEANEWSLETTER

Researching education, improving learning

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IN THIS ISSUE

EDITORIAL
2016: Moving beyond the ordinary

BY PAULÍNA KORŠŇÁKOVÁ, DIRECTOR OF THE IEA SECRETARIAT

The whole IEA family, including all our colleagues working in differing capacities in various assignments in the field of large-scale comparative studies in education, and the Association's stakeholders and partners, is familiar with the usual cycle of duties within a year. We review these in the annual report of our Association, providing progress reports of the studies conveyed under our auspices, as well as summarizing the additional work undertaken in conveying or supporting other studies (for example OECD TALIS) and research projects.

At this time of the year, it should come as no surprise to those involved that: TIMSS 2015 is moving smoothly towards the scheduled 29 November release date; PIRLS, ePIRLS 2016 and ICCS 2016 have successfully concluded their data collections; and ICILS 2018 has developed an enhanced framework and instruments by adding the computational thinking to its research agenda.

In order to fulfil the expectations of our membership, however, it was not enough to focus our efforts and attention exclusively on our traditional tasks. We were called to better support the needs of our members by improving the promotion of the studies and the use of the data on educational achievement.

It is a truth that, despite our diligent and dedicated endeavors, and our undoubted international reputation for high-quality research, the IEA has not equally earned the recognition and connections necessary for the optimal launch and promotion of new studies and cycles. We recognized that we had to take a step back from the research bench, and devote more time to strategical thought and investment in enhancing communication of the IEA's mission and the results of our work, and so we did.

We have made remarkable progress in streamlining procedures across our studies, making them user-friendly (for example through the new eAssessment System). We have also streamlined our IEA team at our two locations, and we have refreshed our brand and webpages. While all this was happening, the IEA office in Amsterdam relocated to a nearby premises that should enable the future development of the Association. We have facilitated and nourished explorations of the rich datasets, by commissioning a range of differing types of publication, such as the new in-depth reports, the policy briefs and the journal *Large-Scale Assessments in Education* (in partnership with ETS). Our goal is to ensure that the IEA's data are properly tailored for specific audiences. We are increasingly aware of what should be done for our members and partners, and, yes, we are proudly moving beyond our established tasks to become the renewed and extraordinary IEA.

IN AUGUST, DIRK HASTEDT SPOKE ABOUT THE VALUE OF INTERNATIONAL EDUCATIONAL ASSESSMENTS ON ARGENTINIAN TELEVISION.

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ICILS 2018 and the future of e-assessment

SHOULD WE INDIVIDUALIZE LEARNING?

BY JEPPE BUNDSGAARD, DEPARTMENT OF EDUCATION, AARHUS UNIVERSITY

The first cycle of the IEA International Computer and Information Literacy Study (ICILS) was completed in 2013. The study was the first international study of computer and information literacy, and it provided important information about what students around the world are capable of when it comes to using computers to search for, select, use, communicate and produce information.

The study was also the first international study to use an innovative computer-based interactive performance instrument to test students' skills. We developed four modules, each framed as an authentic storyline and each requiring students to create information products using purpose-built software. For example, students were asked to plan a band competition, or to create a presentation for younger students that explained how people breathe. These modules enabled us to assess students' skill at using computers and software to solve real-life problems.

Given the success of the first study cycle, ICILS 2018 will retain the central study framework, but we have also decided to supplement the study with a test of students' computational thinking skills. The international study center at the Australian Center for Educational Research (ACER) is working on the final drafts of the test modules for the field trial. They put students in rich problem-solving situations, where they will use custom-built design systems and visual scripting models to show how to solve real-world problems, like how to get a school bus to take the best route, or how to fix bugs in a robot control program.

I think it is fair to say that ICILS is on the international forefront of computer-supported assessment, or e-assessment, of student skills. But there is an important distinction to be made here, between promoting individualization and adaptation, and promoting production, collaboration and communication.

INDIVIDUALIZATION VERSUS COLLABORATION

I was invited to be a panel moderator at the EdTechXEurope Conference in London in June 2016. The panel was called *The Future of Digital Assessment*, and panelists were IEA's Dirk Hastedt, Nima Marefat, deputy chief executive officer of the Swedish company DigiExam, and Richard Mauritsson from Lund University. One of the things that stood out very clearly to me from the discussions in the panel, and from the associated exhibition, was that there are two mutually connected potential conflicts between innovative versus traditional uses of computers, and between individualization and collaboration.

The first conflict is related to the question: is it good to use computers? And thus, is it a good idea to introduce computers to traditional educational practice, where computers are used to support a teacher-centered, drill-and-practice-oriented learning, focused on teaching students basic skills and content? Or should we instead focus on integrating computers into progressive and innovative teaching and learning practices when developing instructive support, learning programs and assessments?

To me, there is no doubt: computers are not necessarily good, so they will not make undesirable teaching practices evolve into good practices; regardless of their sophistication, they remain tools rather than masters. However, progressive and innovative teaching practices, where students work autonomously or collaboratively in an inquiry-based system, can be difficult to manage for teachers and students. Computers can be a tool to organize and structure students' and teachers' collaboration, and may help students to access content and produce products themselves.

The second conflict is connected to the promise of individualization and adaptation to the individual student. In principle, it sounds like a very good idea to give the individual student exactly the challenges they need and focus on the zone of proximal development for learning. So when a student struggles with a particular mathematics problem, they are able to get extra content and more problems to practice at the appropriate level of difficulty to maximize learning. Using computers, each student sits at their own desk, working at their own pace; this is the ultimate privatization of education. Meanwhile the class community loses its meaning, because each student is working with different parts of the content, and may even be using different learning methods. That may or may not be a problem.

A number of projects have set out to define the core skills necessary for the 21st century. For example, Dede (2009) found that these tend to be composed of a very similar set of skills. They typically encompass skills like critical thinking, problem-solving, collaboration, communication, entrepreneurship and innovation, and often also include citizenship, ethics, and life and career skills. In recent years, the focus in such discussions has been very much on students' computational thinking skills. ICILS 2018 will be a state-of-the-art example of how such skills can be tested.

All the frameworks on the 21st century skills have one more thing in common as a natural consequence of the skills listed, namely they all call for collaboration, inquiry, creative solutions and productive communication. How can students learn these skills in isolation? Here, the class can in fact be a very meaningful context to work in.

If each student is to receive individual, adapted and, preferably, computer-generated feedback, collaboration might very well become a problem, for who did the work, and how can each member of a group obtain personalized feedback at their level? It may be far easier to use taxonomies and standards as a point of departure for the tasks than it is to give students real-life challenges that ask them to innovate, plan, collaborate, produce or communicate. Thus, many of the adaptive systems and e-assessments that we witness today adopt the easy route and give students tasks in a pre-structured, yet adaptive way. Students are challenged at their level, according to what they are striving to accomplish. But this is not necessarily what they need to learn.

ICILS 2018 takes the far more difficult road by putting students in a simulated real-world storyline, and asking them to solve complex problems that, for example, involve production of multimodal texts and (simulated) communication. To me, this should be the future of e-assessment.

It would be wonderful if the problems were so simple that we could ask a few savvy programmers to come up with the perfect

adaptive learning system; unfortunately – or maybe luckily? – it isn't that simple. We need shrewd teachers, curriculum developers, instructional designers, assessment developers and many other professionals to work together to continue developing content-rich, messy, challenging problems, challenging students to use computers to collaborate on, inquire about and devise well-thought through solutions, which they can share with each other, their teachers, and external experts, stakeholders and parents. This would be the best future for both teaching and e-assessment.

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Digital natives or just kids with smartphones?
THE STORY OF ICILS IN GERMANY

BY BIRGIT EICKELMANN, NATIONAL RESEARCH COORDINATOR OF ICILS 2013 AND ICILS 2018 (GERMANY), PROFESSOR FOR EDUCATIONAL RESEARCH AND TEACHER EDUCATION, UNIVERSITY OF PADERBORN

In 2010, the International Association for the Evaluation of Educational Achievement (IEA) launched ICILS (the International Computer and Information Literacy Study). ICILS was the first international study to address the computer and information literacy (CIL) of Grade 8 students using an elaborate set of computer-based tests. Following the success of ICILS 2013, the IEA, along with the Australian Council for Educational Research (ACER), has now initiated the second cycle of the study, ICILS 2018.

When Germany was initially invited to participate in the first cycle of ICILS, the study was still at the visionary stage. The ICILS approach to measure the extent of familiarity and competences that young people have with computer-based information, and to assess their capability in dealing with computers and producing and evaluating information, provided the first sound internationally comparable data about the CIL competencies that were assumed to be necessary to participate fully in everyday life, lifelong learning and professional environments in the 21st century. Fortunately, the German Federal Ministry of Education decided to support the study, and all 16 federal states (Bundesländer) gave permission for the collection of data within their respective educational subsystems, enabling Germany to accept the invitation to participate. My colleagues Wilfried Bos, who is also responsible for PIRLS and TIMSS in Germany, as well as for ICILS 2013, and Julia Gerick (our National Project Coordinator for ICILS 2013) subsequently joined me in working on this exciting project.

At the beginning of the study, none of us realized how important it would prove to become for the German educational system. Previous studies had shown that

WILFRIED BOS, BIRGIT EICKELMANN AND JULIA GERICK, ICILS COORDINATORS FOR GERMANY.

the implementation of new technologies in schools was a particular challenge in Germany that frequently proved to be more complex than anticipated, and ICILS increasingly identified valuable and highly respected information. Before conducting the study, a lack of insight into the current state of student competence levels surrounding information and communication technologies (ICT) constituted a recognized deficiency in educational research. The results of ICILS 2013 were able to close this gap, providing data on the average competence levels of Grade 8 students for international comparison. Moreover, the study provided important insights into the German educational system, examining both teachers' and students' use of new technologies, and differences in students' CIL skills, as well as revealing the conditions that may support or hinder the acquisition of CIL. ICILS 2013 results showed Germany

to be mid-table when it came to the average competence level of CIL; however, the country ranked last in other aspects, such as teachers' frequency of computer use (Bos, Eickelmann, & Gerick et al., 2014). ICILS 2013 revealed that nearly one-third of Germany's 14-year-olds were merely kids with smartphones, and not Prensky's anticipated "digital natives" (Prensky, 2001). This group of students only achieved competence level 1 or the level "below level one" (see Fraillon et al., 2014). Along with observed disparities between children from different socioeconomic backgrounds, this established fact opened the eyes of many stakeholders; while many had anticipated these poor results, ICILS 2013 provided the missing empirical evidence to challenge educational programs and to push the German educational systems to respond to digital technologies. Since the publication of the results in November 2014, manifold

developments have taken place in Germany. The results were cited in a decision of the federal government, and the Committee on Education invited experts to their committee meetings in order to become better acquainted with the topic and to develop forward-looking measures to encounter the challenges in our educational system.

This development thereafter saw increased collaboration between the state level and the federal level, paving the way for transitioning of the German educational system to the 21st century. With the objective of creating equal opportunities for German youth to participate effectively in everyday life, both in the workplace and in society in general, in the near future all state school curricula will be amended to integrate ICT in teaching and learning; this is aimed both at enhancing subject-specific learning as well as promoting cross-curricula competencies in the use of ICT and digital information.

With these changes on their way, Germany has, of course, enrolled for the follow-up ICILS 2018. While ICILS 2018 will account for new technological and pedagogical trends, it equally enables Germany to investigate the development that has taken place since ICILS 2013, identifying both successes and further need for improvement. Thanks to the first-time participation of highly-valued

educational systems such as the USA, France, Italy, Finland, Luxemburg and Portugal, the developmental phase of the study will benefit from new impetuses. The International Study Center, in cooperation with the IEA, has made "Computational Thinking" available as a new international optional supplement (IEA, 2015); this is a burgeoning research domain that has only received particular attention in the last decade, and proves to be increasingly important. Both the Computational Thinking option and the test modules on CIL were reviewed by the National Research Coordinators in April 2016 and considered highly satisfactory. Yet again, the work by the IEA and ACER seems to be visionary, allowing for educational monitoring not only in countries that look back on a long tradition of ICT in schools, but also in countries where the use of ICT for educational purposes is still in its infancy. Participation in ICILS 2018 will allows all to benefit from the tremendous efforts of this empirical research project, always keeping an eye on the goal of making a change and contributing to an improvement in future educational opportunities for all children.

For more information on ICILS 2018, please see http://www.iea.nl/icils_2018.html and our associated German national website at www.upb.de/ICILS2018.

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BIRGIT EICKELMANN WAS INVITED TO ADDRESS THE GERMAN COMMITTEE ON EDUCATION IN 2015, TO PRESENT AND EXPLAIN THE ICILS 2013 FINDINGS.

Collaboration with UNESCO on measuring global aspects of civic and citizenship education in ICCS

BY RALPH CARSTENS, IEA HAMBURG

ICCS 2019 EXTENDED WAS LAUNCHED IN 2016.

The collection of data for ICCS 2016 is coming to an end in the 24 participating countries and preparations for reporting the results of the study in late 2017 have commenced. The thematic and conceptual scope of ICCS 2016 has already been extended to include aspects of environmental sustainability, the use of social media, and social interactions at school. More recently, the IEA and UNESCO established an official agreement to collaborate with respect to the measurement of Global Citizenship Education (GCED) and Education for Sustainable Development (ESD), which are important dimensions and educational priorities in the larger context of monitoring progress towards Sustainable Development Goal (SDG) 4. The international research consortium implementing ICCS (ACER, LPS and IEA) began to canvass how these educational strands could be better conceptualized in a future round of ICCS, and how new indicators and measures relating to this could integrated with the existing instruments (at school, teacher and student level, covering knowledge and understanding, practices, beliefs and behaviors), as well as with the rich and comprehensive context information.

As with the ICCS study in general, this effort is supported intellectually by the Project Advisory Committee (PAC) and draws on salient initiatives and discussions on the topic.

In early 2016, the IEA invited member and non-member countries to express their interest in participating in a follow-up study, ICCS 2019 Extended. This activity builds on the main cycle of ICCS 2016, yet extends the country and thematic coverage of the well-established trend study to include additional indicators related to GCED and ESD allowing participating countries to assess trends in civic knowledge and engagement over time and monitor progress toward SDG target 4.7. ICCS 2009, 2016, and 2019 will be linked conceptually and statistically. Registration for ICCS 2019 Extended is still open until the end of 2016 (for further details and information on how to join an IEA study, please contact the IEA). The extended study will then only progress if a minimum of 10 countries contribute. Irrespective of feasibility, the international team will continue to explore how newly developed or extended instruments could be piloted in countries already participating, in collaboration with UNESCO and new partners active

in the field of GCED, for example our IEA member, the Korea Institute of Curriculum and Evaluation (KICE).

In the interim, ICCS 2009 data (and next year's 2016 data), among other IEA studies, will contribute to the recently established UNESCO eAtlas for Education 2030 (UNESCO, 2016). Besides the global indicator for Target 4.7 (the extent to which GCED and ESD are mainstreamed in national policies, curricula, teacher education and student assessment; indicator 4.7.1), the thematic indicator 4.7.4 (the percentage of students by age group, or education level, showing adequate understanding of issues relating to global citizenship and sustainability) will be supported by IEA ICCS data from 2009 and beyond in the context of formal education in schools.

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Experiences from a secondment at the UNESCO International Institute for Educational Planning (IIEP)

BY ANNE-BERIT KAVLI, IEA CHAIR, NORWEGIAN DIRECTORATE FOR EDUCATION AND TRAINING, OSLO

ANNE-BERIT (LEFT, MIDDLE ROW), WORKING WITH THE MINISTRY OF EDUCATION, SOUTH SUDAN.

Last winter I had the very rewarding opportunity to work at the UNESCO IIEP, on secondment from the Norwegian Directorate for Education and Training.

IIEP's mandate is to support educational policy, planning and management in member countries. Their work is mainly concentrated in three areas: training and capacity building, technical cooperation, and research and knowledge sharing. In this they clearly share many common goals with the IEA.

TRAINING AND CAPACITY BUILDING

IIEP offers a variety of specialized training programmes for educational planners and managers, including massive open online courses (MOOCs) and e-forums on educational planning and management; indeed, Tom Loveless and I co-chaired the IIEP Learning Portal's first e-Forum on learning assessments in November last year (IIEP, 2016), and Dirk Hastedt and I had the great pleasure of participating in one of the IIEP's MOOCs in February of this year (Hastedt, Kavli, & Saito, 2016). Their flagship program is the Advanced Training Programme (ATP) in educational planning and management. This is an intensive programme consisting of a six-month online phase and a six-month residential phase in Paris. Participants in IIEP's training programmes afterwards become part of an important alumni network.

TECHNICAL COOPERATION

This is a central part of IIEP's capacity building, where experts from IIEP work with ministries to provide support for education sector analysis, planning and management. Part of this can also be support to the development of systems for monitoring and evaluation. IIEP's expertise is particularly targeted towards the developing world, including countries affected by crises, such as conflicts and/or disasters.

RESEARCH AND KNOWLEDGE SHARING

As an important contribution to the support of countries to achieve quality learning for all, IIEP has developed the Learning Portal (IIEP, n.d.) The Learning Portal is a web-based resource which aims to provide "comprehensive, up-to-date, relevant, and neutral information on learning issues, from primary through secondary education". The information in the portal is categorized under three main themes: improve learning, plan for learning, and monitor learning.

I had the privilege to be involved in all these areas of IIEP's work, and I found it especially rewarding to work closely with ministries in countries as diverse as South Sudan and Cambodia, and assist in sector analysis and planning.

In 2015 the Sustainable Development Agenda 2030 was acknowledged by all United Nation member countries. The importance of education is highlighted throughout the whole agenda, which consists of 17 sustainable development goals (SDGs). Goal 4 is the education goal, and states the right to "inclusive and quality learning for all". The targets for SDG 4 represent a shift from the emphasis access to education to a stronger emphasis on quality learning outcomes.

For IIEP, this means that the right to quality learning for all is at the centre of all their activities, and an important discussion was started within IIEP on how learning assessments could be included as part of a holistic strategy for quality assessment and quality development. This is particularly challenging for the developing world, where many countries lack both resources, infrastructure and capacity to develop relevant and reliable measures of learning outcomes. Here, IEA represents unique experience and expertise. The IEA has already developed studies like TIMSS Numeracy, PIRLS Literacy and the new LaNA initiative, all of which are especially targeted towards developing educational systems. However, for many of the poorest developing countries, even these studies are not yet realistic. Building on the IEA's initial work in this arena, it would be of great interest to discuss how the IEA could also help to build capacity in such countries, where not only poverty, but also conflict and disaster, are enormous challenges for the education system.

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Providing targeted capacity building to national education systems

BY CLARA BEYER, IEA HAMBURG

The IEA's half-century-plus body of experience in the administration of international large-scale educational assessments means that it has built and maintained a strong international reputation for expertise in sampling, study design, statistical analysis, software development and administrative support, among other areas. Participation in a formal study is not feasible for every country or education system, however. In order to respond to an increasing demand for knowledge transfer to education systems in need of support, in recent years the IEA has broadened the scope of services available to national governments and education systems to include targeted support in areas integral to educational development.

One such initiative is the National Evaluation and Pilot Assessment 2016, which was administered this spring in the country of Haiti; with a population of over 10 million (The World Bank, 2016), Haiti is listed among the 25 countries with the lowest gross domestic product per person in the world (Worldatlas, 2016).

HAITI PRE-PILOT ASSESSMENT (PHASE 1): STATISTICAL THEORY AND DEVELOPING A PLAN

In May 2015, the Haitian Ministry of National Education (MENFP) worked with the IEA to administer a pre-pilot assessment to fourth and sixth graders in 60 schools nationwide. The IEA composed and released two reports detailing the statistical analyses and findings of this pre-pilot assessment, which was originally envisioned as an opportunity for the MENFP to partner with the IEA to develop and field-test a short mathematics and reading test using sourced items from past IEA large-scale assessments.

The project evolved, as it became clear upon further analysis of the data gathered and in consultation with stakeholders within the country that a more comprehensive tailored approach was needed.

First and foremost, a need emerged for capacity building within the country in statistical theory and analysis, with a focus on analyzing data collected both during the pre-pilot assessment 2015 and during a concurrent census-based national evaluation 2015. In other words, in-country expertise was needed to develop a strategy on how to best use the gathered data to inform education policy and improve future national assessments. To meet this objective, the IEA's Research and Analysis team worked with the International Studies Unit to develop a tailored statistical methods and data analysis seminar, which was administered to around 40 participants from the Haitian educational sector in Port-au-Prince in November 2015.

HAITI NATIONAL EVALUATION AND PILOT ASSESSMENT 2016 (PHASE 2): BUILDING CAPACITY

Following the successful training in November 2015, and building on the previous year's findings and experiences, in winter 2015–2016 the IEA worked closely with the MENFP, the Inter-American Development Bank (IDB), and The Haitian Institute of Training in Educational Sciences (IHFOSED) to develop a proposal that met the specific development needs of the Haitian education system and government. Underscoring this process was the idea that advancements related to the administration of Haitian national assessments should necessarily work towards sustainable improvements, which involve strong Haitian ownership of and involvement in all activities included in the resulting consultancy contract. As a result, a two-year plan was agreed upon with a focus on capacity building activities in the areas of assessments and evaluations at the national level, with the intention of effecting lasting change, benefiting future national reforms and policymaking. The following areas were identified as potential targets for knowledge transfer:

- Assessment framework development,
- Test development,
- Sampling,
- Data entry and data entry software,
- Database creation and management,
- Statistical methods and analysis, and
- Reporting.

To kick off the two-year consultancy contract, and in order to develop a new test for May 2016, expertise in item and questionnaire development was provided during a two-week in-country seminar in January 2016. During this test development seminar, the IEA worked with Mr Leo Laroche, an expert in the field, who had experience working as National Research Coordinator for TIMSS in Canada, to enhance MENFP stakeholders' knowledge of how to create items from scratch to satisfy the requirements of an internally developed assessment framework, or "tableaux de specification". The teams were split into areas of expertise, with one group each working on mathematics, French, Creole, and background questionnaire content domains.

Altogether, the teams created 361 items, including questions on mathematics, French reading comprehension and grammar, and Creole reading comprehension and grammar; additional student, teacher and principal background questionnaires aimed at providing important contextual indicators (such as socioeconomic status, type of school and region) when linked with student achievement data. These items were assembled into blocks and assigned to one of two tests scheduled for 24 May 2016: the Pilot Assessment 2016, administered to a non-representative sample of 40 schools, and the National Evaluation 2016, administered to a representative sample of 526 schools from around the country.

To prepare for the May 2016 test:

- Weekly or biweekly meetings with stakeholders from IEA, MENFP, IDB and IHFOSED were held to clarify study design and provide quality assurance.

- Samples for both tests were drawn by the IEA's team of sampling experts, using the most recent census data from the country.

- Following several rounds of item review and selection with input from stakeholders from the IEA, MENFP, IHFOSED, and the IDB, the two tests were compiled by the IEA and sent to the country for printing.

- The IEA created a Test Administration Manual for each test to aid adherence to international quality-control standards; this drew on the experiences seen on the ground in 2015. The manual was translated into French and Creole in-country and distributed to the test administrators before the day of test.

- To aid in student listing and tracking procedures and test administration, the IEA developed student tracking forms and test administration forms for use on day of test.

- The IEA adapted the data management expert (DME) for data capture and improved data entry.

▪ Two data entry seminars in the use and management of the DME were administered prior to the day of test.

On 24 May 2016, an IEA representative visited schools taking part in both the Pilot 2016 and the National Evaluation 2016. The data from the two tests, which collected data from over 22,000 students in total, as well as background data from the students, their teachers and their school principals, will be released and analyzed during the summer of 2016, and compiled into reports including indicators on important contextual factors relating to student achievement.

2017 AND BEYOND: MOVING FORWARD

Building on the first training, a second statistical methods and data analysis seminar will be held in autumn 2016 to cover more in-depth statistical theory and introduce the IEA's IDB Analyzer, which creates SPSS code that can be used to conduct statistical analysis that take into account the complex sample and assessment structures of these databases. Using the databases from the Pilot Assessment and National Evaluation 2016, participants will be able to analyze specific factors of interest and formulate research questions of importance within the country.

During this time, the plan for the next year's scheduled activities will also be discussed, and MENFP officials will present and clarify the ways in which the IEA can best aid in the advancement of the Haitian educational sector through capacity building, drawing on the IEA's myriad areas of expertise and experience.

Moving forward, Haiti has joined a list of national governments, such as India and Benin, which have worked with the IEA to strengthen specific areas of need relating to the administration and advancement of national assessments and data gathering. In the words of the United Nations Secretary-General, Ban Ki-Moon, speaking in May 2016 to the United Nations Department of Public Information/Non-Governmental Organizations Conference on the importance of nongovernmental organization (NGO) involvement in the advancement of education, "NGOs are on the vanguard of international action" (United Nations, 2016). By providing national governments and education systems with focused initiatives that target specific areas of need, the IEA is adapting to the shifting global realities that underpin challenges to educational development worldwide.

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LaNA, the literacy and numeracy assessment for developing countries

"At least 250 million primary school-age children around the world are not able to read, write or count well enough to meet minimum learning standards, including girls and boys who have spent at least four years in school" (Learning Metrics Task Force, 2013).

There are still many education systems that do not have a clear policy on assessment and do not provide necessary training for educators; this leaves them unable to address the "what" and the "how" of student assessment as a means to determine achievement levels and assess progress toward the global goals for education (see United Nations, 2016). IEA Director Dirk Hastedt delivered an inaugural lecture on the IEA LaNA project to the World Bank Group at the end of 2015.

The IEA created LaNA to help developing countries, in collaboration with the TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College. A great advantage is that the numeracy achievement will be linked to the TIMSS and TIMSS Numeracy assessments conducted in 2015, while the literacy achievement will be linked to the PIRLS and PIRLS Literacy assessments conducted in 2016. Participating countries will thus obtain international comparisons of their numeracy and literacy achievement with countries from all over the world. The IEA welcomes potential partners and donors interested in helping developing countries to implement capacity building in education. If you would like to know more about LaNA and the IEA's efforts to support quality education for all, please contact us.

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TIMSS prepares to report 20 years of trends

BY SHIRLEY GOH, TIMSS & PIRLS INTERNATIONAL STUDY CENTER, BOSTON COLLEGE

The IEA's TIMSS & PIRLS International Study Center at Boston College is ramping up for the International Release of TIMSS and TIMSS Advanced 2015 in November. TIMSS marks 20 years of trends in mathematics and science achievement with this cycle, and the staff, led by Executive Directors Ina V.S. Mullis and Michael O. Martin, are working to prepare the results under rigorous standards of quality, and to present the data in an exciting new digital format.

Pierre Foy, Director of Sampling, Psychometrics, and Data Analysis, and Liqun Yin, Research Psychometrician, have spent the past year developing the scaling methods for the achievement and context scales. Foy noted a special interest in linking the TIMSS Numeracy assessment to the TIMSS mathematics test at the fourth grade.

"Right now we're dotting the i's and crossing the t's on all the data we've produced for the international reports," he said. "Then we'll finalize the international databases, and document the whole work from the achievement scaling, context questionnaire scaling, the user guides for analyzing the data."

Foy and Yin also adapted their methods to account for a bigger workload of data; adding TIMSS Advanced and TIMSS Numeracy to the usual TIMSS fourth and eighth grade mathematics and science assessments resulted in seven TIMSS assessments in total. Foy estimated that approximately 630,000 students worldwide participated across all the TIMSS assessments in 2015.

"We're constantly improving our methods, streamlining our processes, automating
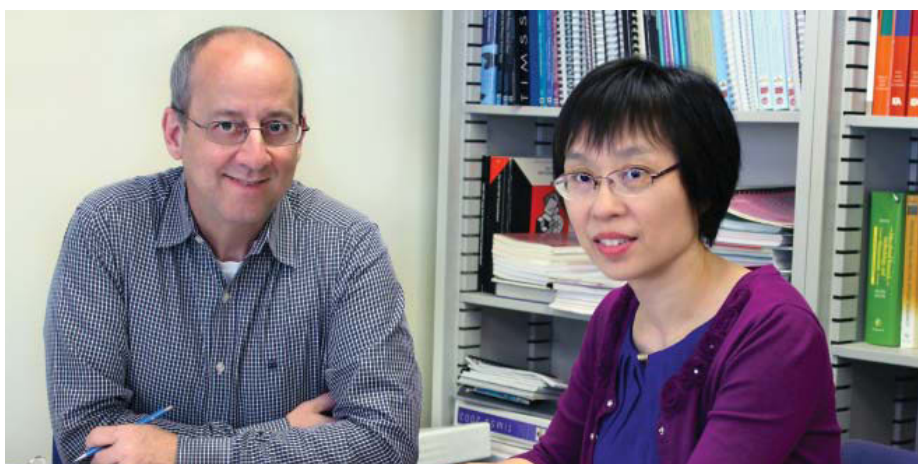
PIERRE FOY, DIRECTOR OF SAMPLING, PSYCHOMETRICS, AND DATA ANALYSIS, AND LIQUN YIN, RESEARCH PSYCHOMETRICIAN, ARE ANALYZING THE TIMSS DATA.

things so we can do more in less time," he said. "As well as relying as usual on Boston College's Linux Cluster mainframe, we've added two extra high-powered workstations to deal with the production volume. For example, running the context questionnaire scaling takes 18 hours, so we need computers to run simultaneously."

A DIGITAL FORMAT FOR THE TIMSS 2015 INTERNATIONAL RESULTS

For the first time, these results will be presented as an online report. Yeny Pardini, Lead Designer/Developer for eAssessments, is designing a website for the TIMSS and TIMSS Advanced 2015 International Reports. Results will be summarized in a series of infographics, in addition to the detailed exhibits that have been the foundation of all TIMSS reports.

The infographics will report results in concise and visually appealing ways. A window will display the infographics and exhibits, which users can download or bookmark to a Saved Pages section to access later. A Download Center will enable users to download the exhibits all at once, or select chapters that relate to certain topics or grades. "That way, you have exactly what you need," Pardini said.

Users will be able to run search queries on the website, and a site map will function as an index for the reports, making it easy for users to find what they are looking for. "With a click, you are there," Pardini said. She added that the website will be designed for search engine optimization (SEO), making IEA's TIMSS and TIMSS Advanced 2015 reports more discoverable to the public.

The TIMSS 2015 Encyclopedia will also be an online report, published on 10 October 2016. Each country authored a chapter describing its educational system, mathematics and science curricula, teacher education and professional development, instructional practices, technology use, and procedures for monitoring student progress. Using a menu on the left, users can navigate easily to the introduction, curriculum questionnaire exhibits and country chapters. Underneath the menu, a suggested citation and a link to the Copyright Notice & Disclaimer will be displayed. Above each chapter, users can click on panels to skip to any section within the chapter. All the content will be available to download via the Download Center.

YENY PARDINI, LEAD DESIGNER/DEVELOPER FOR EASSESSMENTS, IS DESIGNING THE WEBSITE FOR THE TIMSS AND TIMSS ADVANCED 2015 INTERNATIONAL REPORTS.

The results for TIMSS and TIMSS Advanced 2015 will be released on 29 November 2016.

7th IEA International Research Conference (IRC-2017)

FACULTY OF EDUCATION, CHARLES UNIVERSITY, PRAGUE, CZECH REPUBLIC.

The IEA invites researchers, practitioners and policymakers open to exchanging ideas and information on critical educational research issues to attend the 7th IEA International Research Conference, 28–30 June 2017, in Prague. Conference themes include: research using IEA studies, including TIMSS, PIRLS, ICCS, ICILS, CIVED, SITES and TEDS-M; policy implications of large scale educational research based in IEA data; how IEA data informs learning and teaching practice in international education; and methodology and analysis in large-scale assessment.

CELEBRATING 20 YEARS OF TIMSS

Researchers from all over the world will have the opportunity to engage in creative dialogue about their secondary analysis findings, and consider the emerging implications of their research for the development and methodology of large-scale assessment, and current debates in education policy and practice. Keynote speakers will be Dr Ina Mullis and Dr Michael Martin (TIMSS & PIRLS Study Center, Boston College), Dr David Greger (IRDE, Faculty of Education, Charles University), and Professor Fons van de Vijver and Jia He (Department of Culture Studies, Tilburg University).

IRC-2017 will take place at the prestigious Faculty of Education at the Charles University in Prague. Charles University is the oldest university in Central Europe, with a history that extends over 650 years. The beautiful historic center of Prague is on the UNESCO list of World Heritage Sites, and transportation links are excellent. Conference participants may benefit from special rates at hotels within easy walking distance from the venue.

IRC-2017 is an unmissable opportunity to network with the wider educational research community, present your work, and gain invaluable knowledge and expertise. The IEA began this series of research conferences in 2004, with the aim of fostering research collaboration and knowledge-sharing related to IEA studies, and promoting greater understanding of the effects of policies and practices within and across systems of education. IEA studies provide high quality research data in an international context, reporting trends supported by a rich background data repository. The studies are curriculum-anchored and grade-based, enabling student achievement to be analyzed against a wide range of variables related to instructional practices, opportunities to learn, school organization, and the backgrounds and attitudes of students and teachers.

WORKSHOPS

Training workshops on 26–27 June 2017 will provide a stimulating and practical learning environment for all those wishing to improve their understanding of, and gain practice in, working with data from large-scale international assessments. Workshop topics include: meeting specific national research interests, multilevel modeling procedures, the basics of structural equation modeling, and Bayesian techniques.

INTRODUCING SYMPOSIA AND POSTER SESSIONS

As new conference elements, researchers are invited to submit topic proposals for dedicated symposia sessions. There will also be the opportunity to showcase their educational research projects as posters throughout IRC-2017. As space is limited, posters will be selected for the conference based on overall quality and relevance to the conference themes. Multiple authors are possible, but at least one individual must plan to be registered for the conference. The IEA is delighted to announce that a new prize will be awarded for the best poster.

Register for IRC-2017 today at: www.conftool.net/irc-2017. We look forward to meeting you there!
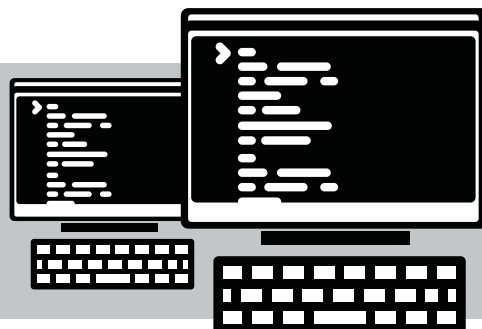
IMPORTANT DATES!
PROPOSAL SUBMISSION
DEADLINE 1 DECEMBER 2016

CONTRIBUTIONS BASED ON TIMSS 2015 DATA
ARE PERMITTED AN EXCEPTIONAL DEADLINE
OF 1 JANUARY 2017

The R package 'intsvy'
AN ALTERNATIVE STATISTICAL TOOL FOR DATA ANALYSIS

BY DANIEL CARO, OXFORD UNIVERSITY CENTRE FOR EDUCATIONAL ASSESSMENT, UK

Excluding the IEA's own International Database (IDB) Analyzer, there are few statistical tools specifically designed for the analysis of international assessment data that properly handle the complex design of international assessments and facilitate data management and analysis. Functionalities tailored to the needs of international assessment researchers, such as data merging tools, analysis by country and proficiency levels, are essential features. The R package 'intsvy' provides a completely open source, free and extensible alternative for handling international assessment data (Caro & Biecek, in press). Inspired by the IEA's IDB Analyzer, 'intsvy' provides tools for importing data, performing data analysis, and visualizing results in the R environment. The package is designed to handle data from IEA's TIMSS (The Trends in International Mathematics and Science Study), PIRLS (Progress in International Reading Literacy Study) and International Computer and Information Literacy Study (ICILS), and OECD's PISA (Programme for International Student Assessment) and PIAAC (Programme for the International Assessment of Adult Competencies). The architecture has been designed to be easily extensible to other international assessment studies.

As with other R packages, intsvy is installed and loaded into the R system with,

```
> install.packages('intsvy')

> library('intsvy')
```

This article presents an example of how 'intsvy' can be used to analyze international assessment data, using data taken from PIRLS 2011 as an example. I here outline how to import and analyze the data, and generate a graphical summary of the results using tools available within intsvy. This example concentrates on two of the analysis functions: average student performance and regression analysis. I calculated average student performance by education system using plausible values in reading achievement and taking into account replicate weights. The regression analysis demonstrates how to estimate a regression of reading achievement on the student's sex and early literacy activities scale.

IMPORTING THE DATASETS
Before conducting any analysis, the data has to be imported into the R system. Robust tools for importing data are particularly useful for IEA datasets, since the data are typically organized into a large number of files, categorized for example by country, school grade or survey instrument; users are not always familiar with the data structure.

For the analysis, reading achievement, the student's sex (`ITSEX`), and the early literacy activities scales (`ASDHELA`) were imported into intsvy. Reading achievement data did not need to be explicitly

selected, because plausible values and sampling weight variables were selected by default. For illustrative purposes, I only imported data for a selection of education systems (namely, Australia [AUS], Austria [AUT], Azerbaijan [AZE] and Belgium [French, BFR]). I also imported some variables (such as school data) that were unused in the analysis.

Selected data from PIRLS 2011 may be imported using the `pirls.select.merge` function:

```
> pirls <- pirls.select merge(folder = "C:/
    PIRLS/PIRLS 2011/Data",
    countries = c("AUS", "AUT", "AZE", "BFR"),
    student = c("ITSEX", "ASDAGE", "ASBGSMR"),
    home = c("ASDHEDUP", "ASDHOCCP", "ASDHELA",
    "ASBHELA"),
    school = c("ACDGDAS", "ACDGCMP", "ACDG03"))
```

where `folder` indicates the location of the PIRLS data files downloaded from the IEA Data Repository. Note that in R the backslash (`\`) used in Windows has to be replaced with the forward slash (`/`). Arguments `countries`, `student`, `home`, and `school` allow for selection of specific education systems and variables by instrument.

The resulting `pirls` object contains the selected data from PIRLS 2011. The function `intsvy.var.label` can be used prior to importing data to inspect the original data files and decide which countries and variables to select.

PERFORMING DATA ANALYSIS
Average student performance

The following code calculates average reading performance by education system.

```
> pirls.mean.pv(pvlabel = "ASRREA", by =
"IDCNTRYL", data = pirls)
   IDCNTRYL        Freq    Mean    s.e.    SD     s.e
1 Australia        6126  527.37   2.21   80.22   1.31
2 Austria          4670  528.88   1.95   63.38   0.95
3 Azerbaijan       4881  462.30   3.33   67.83   1.68
4 Belgium(French)  3727  506.12   2.88   64.67   1.57
```

The `data` argument indicates the object containing the international assessment dataset, in this case the `pirls` data frame that was created previously with `pirls.select.merge`. The `pvlabel` argument indicates the label corresponding to plausible variables, in this case, reading achievement. The `by` argument indicates the grouping variable, in this case, education

systems, but it may also include more than one grouping variable. For example results categorized by education system and student's sex may be derived by:

```
> pirls.mean.pv(pvlabel = "ASRREA", by =
c("IDCNTRYL", "ITSEX"), data = pirls)

  IDCNTRYL        ITSEX Freq Mean   s.e.  SD    s.e
1 Australia       GIRL  3048 535.79 2.67 78.20 1.62
2 Australia       BOY   3078 519.20 2.73 81.30 1.75
3 Austria         GIRL  2274 532.76 2.18 62.00 1.21
4 Austria         BOY   2396 525.19 2.32 64.44 1.48
5 Azerbaijan      GIRL  2241 469.57 3.56 67.31 1.94
6 Azerbaijan      BOY   2640 455.82 3.47 67.63 1.85
7 Belgium (French) GIRL 1815 508.85 3.11 63.11 2.01
8 Belgium (French) BOY  1912 503.51 3.11 66.02 1.62
```

The output contains different column labels. The Freq column indicates the number of students in the sample, the Mean column average performance, the SD column the standard deviation of the Mean, and the s.e. columns the corresponding standard errors for the Mean and the SD.

The results can be exported directly into a spreadsheet using the argument export = TRUE:

```
> pirls.mean.pv(pvlabel = "ASRREA", by =
c("IDCNTRYL", "ITSEX"), data = pirls, export=TRUE,
name="PIRLS", folder="C:/PIRLS/PIRLS 2011/Data")
```

The arguments name and folder indicate the name of the file and directory path where the output in comma-separated values (csv) format will be stored. The data can be easily loaded into an Excel spreadsheet, or other similar software package.

Regression analysis

The pirls.reg.pv function can be used to estimate a regression of reading performance on the student's sex (ITSEX) and the early literacy activities scale (ASBHELA):

```
> (pirls_ela <- pirls.reg.pv(pvlabel="ASRREA",
by="IDCNTRYL", x=c("ITSEX", "ASBHELA"),
data=pirls))

$Australia
              Estimate   Std. Error    t value
(Intercept)   463.04        10.84       42.72
ITSEXBOY       -9.39         4.12       -2.28
ASBHELA         7.64         0.90        8.54
R-squared       0.05         0.01        4.84

$Austria
              Estimate   Std. Error    t value
(Intercept)   462.75         8.56       54.05
TSEXBOY        -4.52         2.32       -1.95
ASBHELA         6.99         0.76        9.20
R-squared       0.04         0.01        4.79

$Azerbaijan
              Estimate   Std. Error    t value
(Intercept)   447.94        11.84       37.82
ITSEXBOY      -12.70         2.73       -4.65
ASBHELA         2.31         1.18        1.96
R-squared       0.01         0.01        2.25

$`Belgium (French)`
              Estimate   Std. Error    t value
(Intercept)   437.07        10.73       40.75
ITSEXBOY       -3.09         2.37       -1.31
ASBHELA         7.42         0.96        7.77
R-squared       0.04         0.01        4.32
```

The output is a list containing estimates of regression coefficients, associated standard errors and t-values by education system. In addition to producing the regression output, results have been stored in the object pirls_ela.

PRESENTING THE RESULTS GRAPHICALLY

Results of regression analysis and average student performance can be output as figures using the intsvy visualization tools.

Average performance by education system and student's sex was calculated thus:

```
> pirls.mean.pv(pvlabel = "ASRREA", by =
c("IDCNTRYL", "ITSEX"), data = pirls)
```

Results can then be summarized in a figure using the plot.intsvy.mean function:

```
> plot.intsvy.mean(pirls.mean.pv(pvlabel =
"ASRREA", by = c("IDCNTRYL", "ITSEX"), data =
pirls))
```
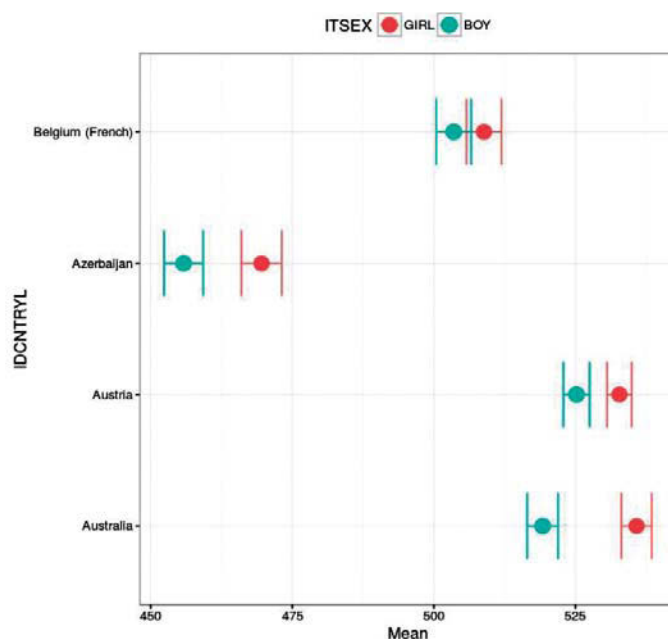

Average student performance for boys and girls by country, including 95% confidence intervals based on standard errors.

THE IDB ANALYZER

An updated version of the IDB Analyzer (Version 3.2) was launched in December 2015. New capabilities include:

- Updates to include new studies,
- Implementation of linear regression with multiple categorical variables,
- Implementation of logistic regression,
- Developed capability to select subsamples for analysis, and
- Implementation of a full jackknife procedure for TIMSS and PIRLS.

Ongoing development work will incorporate SAS capabilities. Questions about the capabilities of the IDB Analyzer may be directed to RandA@iea-dpc.de. The latest version of the IDC Analyzer can be downloaded from the IEA website.

Likewise, it is possible to visualize regression analysis results using the plot.intsvy.reg function. A regression of reading achievement on student's sex and early literacy activities can be stored in the `pirls_ela` object. Results can thus be easily visualized with:

```
> plot.intsvy.reg(pirls_ela)
```

RESOURCES TO LEARN TO USE INTSVY

Such basic examples using PIRLS 2011 demonstrate the potential use of intsvy for the analysis of international assessment data. The intsvy program includes several other functions, such as frequency tables, correlation analysis, percentiles, proficiency levels and logistic regression. The functions have been designed to work with and without plausible values, and are in continuing development.

A starting point for learning how to use the package is the intsvy website at http://users.ox.ac.uk/~educ0279/. The website contains both video and pdf tutorials, and guides interested researchers through specific data analysis examples for the different datasets. Please send an email to daniel.caro@education.ox.ac.uk if you would like to be added to the intsvy mailing list.
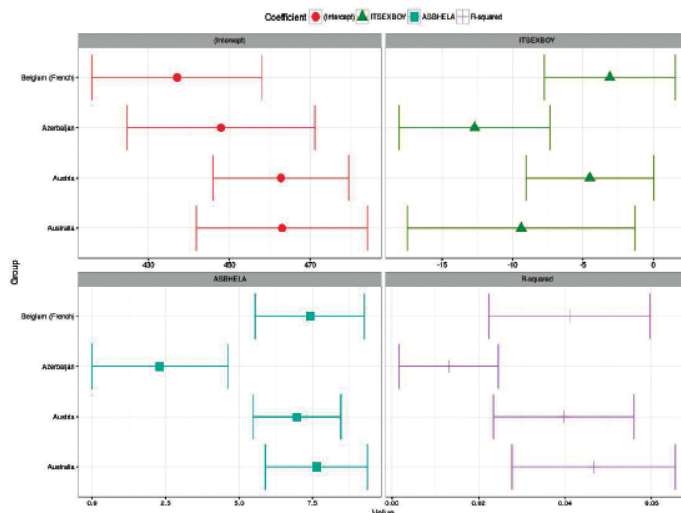
Regression of reading achievement on student's sex and early literacy activities. Estimated parameters by education system including 95% confidence intervals.

REFERENCE

Caro, D. H., & Biecek, P. (in press). intsvy: an R package for analysing international large-scale assessment data. *Journal of Statistical Software*.

THE IEA AND CEMO

In March 2016, IEA executive director Dirk Hastedt and IEA DPC director Heiko Sibberns, and CEMO (Centre for Educational Measurement at the University of Oslo) director Sigrid Blömeke exchanged agreements to cooperate to promote international research. The organizations' combined expertise and shared agendas will prove valuable in promoting educational research worldwide, and both groups will undoubtedly benefit from proposed staff exchange, learning from each other's practices and an expanded supportive network.

WINNER OF THE 2016 IEA

RICHARD M. WOLF MEMORIAL AWARD

The IEA are delighted to announce that the recipient of this year's Wolf Award is Dr Ryan Knowles, Assistant Professor in the School of Teacher Education and Leadership at Utah State University. Dr Knowles holds a PhD in Social Studies Education and Quantitative Research methods, an MA in Political Science with an emphasis on comparative politics, and a BA in Social Studies Education, all from the University of Missouri. Ryan is particularly interested in exploring aspects of culture in relation to notions of democracy. This interest was sparked by analysis of the Asian Barometer while competing his MA, and has since continued using data from the IEA's International Civic and Citizenship Study. His research also focuses on connections between democracy and education, political ideology within public schools, and social justice research across epistemological/methodological divides, with a particular interest in citizenship education in East Asia.

The award-winning paper was:
Knowles, R. T. (2015). Asian values and democratic citizenship: exploring attitudes among South Korean eighth graders using data from the ICCS Asian Regional Module. *Asia Pacific Journal of Education*, 35(2), 191-212.

WINNER OF THE 2016 WOLF AWARD, DR RYAN KNOWLES.

For more information about the IEA's award program, please visit the Awards section on the IEA website. The deadline for applications is 31 March of each year.

The new gateway: a single entry point into the world of international large-scale assessments

IEA RESEARCH AND ANALYSIS UNIT, HAMBURG

Scanning different websites in order to access information, documentation or data related to international large-scale assessments (ILSAs) in education can be an extremely time-consuming experience. To alleviate the task, the IEA is currently developing a fresh platform, an ILSA gateway.

This new platform will serve as an entrance to major ILSAs conducted by many different organizations, including, but not limited to, our own PIRLS, TIMSS, TEDS-M, ICCS and ICILS, studies such as the OECD's PIAAC (Programme for the International Assessment of Adult Competencies), PISA (Programme for International Student Assessment) and TALIS (Teaching and Learning International Survey), and other relevant research projects, like UNESCO's TERCE (Third Regional Comparative and Explanatory Study) or the Inter-American Development Bank's PRIDI (Programa Regional de Indicadores de Desarrollo Infantil/The Regional Project on Child Development Indicators). The gateway will not replicate other efforts but is designed as an additional, overarching service that will predominantly link to content available on the respective study websites, while offering various tools that will enable easier and faster identification of the most relevant ILSA-related information and resources.

The main target audiences for the gateway are researchers, policymakers and decision makers, but it is also intended to be a useful resource for officials and staff members from intergovernmental, international nongovernmental and civil society organizations. The platform strives to facilitate communication within the whole ILSA community. Dynamic tools, such as the news section, the events calendar, and especially the forum, will help to enhance the exchange of knowledge and resources, informed use of ILSA data, discussions to inspire future research, and true international collaboration.

Through the new gateway, the visibility and reach of ILSA will be increased. Users will gain a deeper understanding of study results (for example, their implications, strengths and limitations) and study methodologies. The platform will broaden awareness not only about the studies themselves but also related products (such as international and national reports, papers about secondary analyses, policy briefs or software) and services (for example, for planning or capacity building). The gateway further builds on the IEA's reputation as an institution that has strong expertise in empirical educational practice and research, expanding its research outreach to also become an independent and trustworthy online editorial office.

The IEA's Research and Analysis Unit has overall responsibility for the ILSA gateway. In spring 2016, a production manager, Nathalie Mertes, was appointed to coordinate the communication and work of all (internal and external) parties involved in the development of the gateway, from managing the editorial board and the network of contributors, and promoting the platform, to overseeing maintenance. Nathalie holds a doctoral

DR NATHALIE MERTES JOINED THE IEA EARLIER THIS YEAR.

degree in Information and Library Science from Humboldt University in Berlin, and her experience will be a great asset in developing and promoting the gateway's goals.

Clear and measurable selection criteria, described in detail on the gateway, will serve as a basis for the identification of relevant studies, and include aspects such as a primary focus on education, scope, relevance and language (predominantly English), and the comprehensiveness of the documentation. The last is of particular importance and should enable site users to properly evaluate the quality of each ILSA and its supporting data. The launch of the new platform is planned for spring 2017, and the IEA hopes that its members and partners from the wider research and education community will register to join and support this exciting new development.
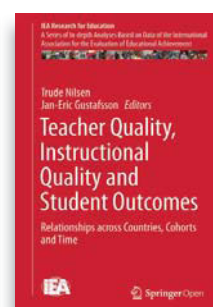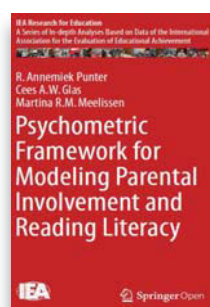
Recent IEA publications

In 2016, the IEA released the first two volumes in its new thematic series, IEA Research for Education.

• Punter, R.A., Glas, C. A.W., & Meelissen, M. R.M. (2016). *Psychometric Framework for Modeling Parental Involvement and Reading Literacy*. IEA Research for Education, Volume 1. Cham: Springer. ISBN 978-3-319-28710-2.

• Nilsen, T., & Gustafsson, J.-E., Eds. (2016). *Teacher Quality, Instructional Quality and Student Outcomes. Relationships Across Countries, Cohorts and Time*. IEA Research for Education. Volume 2. Cham: Springer. ISBN 978-3-319-41251-1.

Further volumes are in the pipeline, and early indications are that the series already appears to be established as respected scholarly analyses to support informed policy advancement.

Two international reports were released, the extremely well-received Early Childhood Education Study (ECES) report and the new assessment framework for ICCS 2016. The IEA were pleased with the positive reviews for the ECES report and also to hear that Estonia immediately intended to use the results to inform the forthcoming Estonian Early Childhood Education and Care Act.

• Bertram, T. & Pascal, C., with Cummings, A., Delaney, S., Ludlow, C., Lyndon, H., Hencke, J., Kostek, M., Knoll, S., & Stancel-Piatak, A. (2016). *Early Childhood Policies and Systems in Eight Countries. Findings from IEA's Early Childhood Education Study.* Cham: Springer. ISBN 978-3-319-39846-4.

• Schulz, W., Ainley, J., Fraillon, J., Losito, B., &. Agrusti, G. (2016). *IEA International Civic and Citizenship Education Study 2016 Assessment Framework.* Cham: Springer. ISBN 978-3-319-39356-8.

The IEA Policy Briefs use secondary analysis of data from IEA studies to address issues of particular interest to policymakers. Recent releases include:

• *Are teacher characteristics and teaching practices associated with student performance?* By José G. Clavel, Francisco Javier G. Crespo & Ildefonso Méndez.

• *Are school characteristics related to equity? The answer may depend on a country's developmental level.* By Trude Nilsen, Sigrid Blömeke, Kajsa Yang Hansen, & Jan-Eric Gustafsson,

• *Is reading contagious? Examining parents' and children's reading attitudes and behaviors.* By Maria Stephens, Ebru Erberber, Yemurai Tsokodayi, Teresa Kroeger, & Sharlyn Ferguson; and

• *Using PIRLS data to investigate the relationship of teachers' instruction with students' out-of-school reading behaviors.* By Morgan S. Polikoff & Nan Zhou.

If readers are interested in collaborating on an upcoming policy brief or have a thought-provoking concept for our Research for Education series, please contact the IEA Publications Officer.

Finally, the IEA were pleased to discover that the recent ICILS 2013 international report, *Preparing for Life in a Digital Age* (ISBN 978-3-319-14221-0) was the second most downloaded book for 2015 in the Springer Education catalogue. The continued worldwide interest in the findings of ICILS 2013 bodes well for the success for ICILS 2018.

As always, IEA publications are freely available for non-commercial use, provided full acknowledgement is given to the source. The IEA is committed to ensuring that the results of its comparative research projects reach a wide audience of researchers, policymakers, technical experts, educators, and all others working to enhance teaching and learning around the world.

Rebranding the IEA

BY MANUEL BUTTY, IEA AMSTERDAM

Researching education, improving learning

Answering the questions what, why, who, when, where and how is key to any complete story-telling. Naturally, the text generation has quickly renamed these six central questions for probing any problem to the more prosaic shorthand term "5W1H". Here are my 5W1H responses for the IEA's re-branding initiative.

WHAT? The IEA identified the need for a new brand identity that was able to convey the core values and central attributes to today's world and thus better promote its mission.

WHY? New and developing communication formats, including social media, new devices such as tablets and mobiles, and "the internet of things", demanded a well-considered integrated brand and modern visual identity.

WHO? After preliminary consultation and in-depth discussion at the last General Assembly (GA), an internal IEA branding group was appointed to identify the Association's future needs, and determine and deliver the tender proposal. An agency based in the USA, with relevant educational and international experience, was awarded the contract.

WHEN? Preparing for the initiative within the IEA and with our membership began long ago, allowing for the work with the agency to begin in May 2016. The new brand was launched internally in Hamburg on 4 October 2016, and officially unveiled at the IEA General Assembly in Oslo, six days later.

WHERE? The IEA offices in Amsterdam and Hamburg worked together very closely to debate, develop and deliver the new brand and all the associated items. Colleagues representing the entire IEA contributed to the initiative during the process.

HOW? The project team compiled a list of attributes of identity, namely a series of attributes that reflected what the organization is and how it would like to be perceived by others, and worked closely with the agency's creative team to hone the final product.

GOING FORWARD I am proud to be able to present the outcome: a new brand, an identity manual to guide its application, a new tagline, a redesigned website, and a comprehensive set of communications materials to help the IEA address its different audiences.

A strong identity is more than a symbol representing us all, it is, when used appropriately, an opportunity to reach our audiences in a more efficient way. It constitutes a valuable tool to convey clear messages to our very different and distinct audiences. I invite you to engage with our new identity, make it your own, and exploit it to promote our mission.

Brief news

RELOCATION

In August, the IEA's Amsterdam office changed address, and visitors should note it is now located at **Keizersgracht 311, 1016 EE Amsterdam**. Telephone and fax numbers remain unchanged.

The IEA offices in Amsterdam oversee many of the day-to-day operations of the IEA, including maintaining relationships with member institutions, partners, and external funding and research agencies; overseeing IEA projects and managing translation verification of the survey instruments and quality control of data collection; financial planning and reporting; and organization of the international conferences and General Assembly meetings. The staff are also responsible for disseminating reports and information about the work of the Association to IEA members and the public.

Keizersgracht 311, 1016 EE Amsterdam.

THE IEA'S NEW PUBLIC OUTREACH OFFICER, MANUEL BUTTY.

PUBLIC OUTREACH

During 2015/2016, essential ongoing developments within the organization have included the all-important topic of the re-branding of the IEA. Our General Assembly members will already be aware of last year's team discussions about the value of "brand IEA" in identifying and publicizing all the dedicated work underlying IEA studies. The goal of the IEA branding initiative was to ensure a coherent presence for all IEA activities at multiple locations. Improved communication and engagement was seen as supporting the IEA's mission and consolidating the IEA's position as a competence center in all aspects of international large-scale assessments (ILSAs), able to support both members' national goals and aspirations, and global goals in education. As a consequence, the IEA is pleased to announce and welcome a new colleague, Mr Manuel Butty, who was appointed IEA's first Public Outreach Officer in May 2016. Mr Butty comes to the IEA with a wealth of experience in corporate communications, and many ideas for innovative methods of disseminating IEA research. Find out more about Manuel's initial activities for the IEA in this issue.