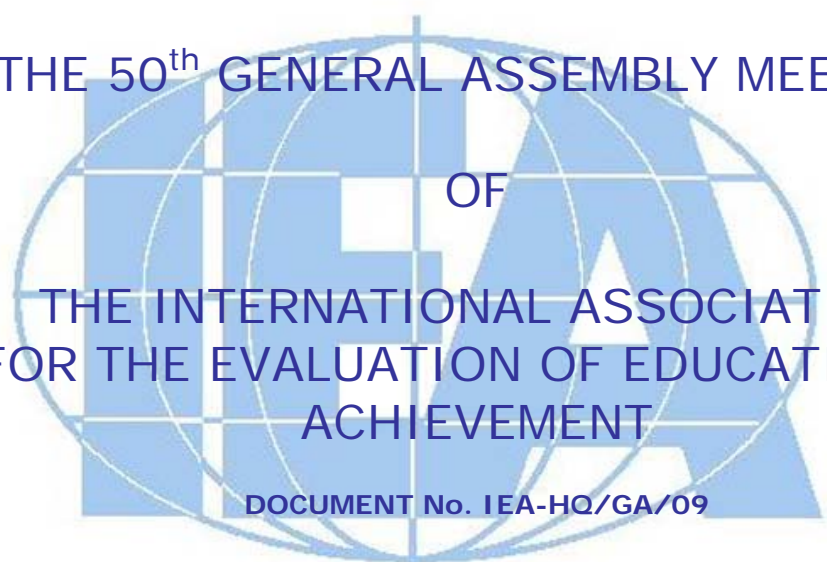


MINUTES  
OF  
THE 50<sup>th</sup> GENERAL ASSEMBLY MEETING  
OF  
THE INTERNATIONAL ASSOCIATION  
FOR THE EVALUATION OF EDUCATIONAL  
ACHIEVEMENT



DOCUMENT No. IEA-HQ/GA/09

.....  
5–8 OCTOBER 2009

Tallinn  
ESTONIA

.....

**HOSTED BY**  
**TALLINN UNIVERSITY**

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**LIST OF PARTICIPANTS (GA-50/B)**
**GA Representatives**

1. Australia	i/a John Ainley, ICCS, ICILS
2. Austria	Mark Német
3. Belgium (Flemish)	Leen Vandeputte
4. Botswana	Serara Moahi
5. Canada	Pierre Brochu
6. Chile	i/a Leonor Cariola Huerta
7. Chinese Taipei	Fou-Lai Lin
8. Croatia	Jasminka Buljan Culej
9. Cyprus	i/a Constantinos Papanastasiou, Honorary Member
10. Czech Republic	Pavla Zieleniecová, SC
11. Denmark	Lars Qvortrup
12. England	Lorna Bertrand
13. Estonia	Anu Toots
14. Finland	Jouni Välijärvi
15. France	Claude Sauvageot
16. Georgia	i/a Tamar Bokuchava
17. Germany	i/a Hermann Josef Abs
18. Greece	Georgia Kontogiannopoulou-Polydorides
19. Hong Kong SAR	Frederick Leung, SC
20. Hungary	Sándor Brassói
21. Iceland	Júlíus Björnsson
22. Italy	Piero Cipollone
23. Japan	Ryo Watanabe
24. Kazakhstan	i/a Saltanat Nogaibalanova
25. Latvia	Andris Kangro
26. Lithuania	Rita Dukynaitė
27. Luxembourg	Michel Lanners
28. The Netherlands	Paul van Oijen, SC
29. New Zealand	i/a Jit Cheung
30. Norway	Anne-Berit Kavli
31. Philippines	Ester Ogena
32. Qatar	Adel Al-Sayed, SC
33. Scotland	i/a Sarah Miller
34. Slovak Republic	Romana Kanovská
35. Slovenia	i/a Mojca Straus
36. Spain	i/a Rosario Sánchez Núñez-Arenas
37. Sweden	Kerstin Mattsson, SC
38. Thailand	Tongthong Chandransu
39. United States	Tom Loveless, SC

**IEA Officers**

40. Jur Hartenberg, Secretariat
41. Dirk Hastedt, DPC
42. Seamus Hegarty, Chair
43. Marta Kostek-Drosihn, DPC
44. Barbara Malak-Minkiewicz, Secretariat
45. Heiko Sibberns, DPC, TEG (*ex officio*)
46. Hans Wagemaker, Executive Director, TEG Chair
47. Alana Yu, Secretariat

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### **IEA Publications and Editorial Committee (PEC)**

- 48. Robert Garden, Honorary Member
- 49. David Robitaille, Chair, Honorary Member

### **IEA Technical Executive Group (TEG)**

- 50. Jan-Eric Gustafsson, Göteborg University, Sweden
- 51. Norman Verhelst, CITO, The Netherlands

### **International Coordinators**

- 52. Julian Fraillon, ICCS, ICILS
- 53. Michael Martin, PIRLS, TIMSS, TIMSS Advanced, TEG (*ex officio*)
- 54. Ina Mullis, PIRLS, TIMSS, TIMSS Advanced, TEG (*ex officio*)
- 55. Wolfram Schulz, ICCS
- 56. Jack Schwille, TEDS-M
- 57. Teresa Tatto, TEDS-M

### **Honorary Members**

- 58. Rainer Lehmann, Humboldt University of Berlin, Germany
- 59. Judith Torney-Purta, Maryland University, United States

### **Observers**

- 60. Tiina Annus (Ministry of Education and Research, Estonia)
- 61. Patricia Arregui (PREAL, Peru)
- 62. Alhaja Mulikat Ayoni Bello (WAEC, Ghana)
- 63. Richard Deiss (European Commission)
- 64. Cesar Guadalupe (UNESCO Institute for Statistics)
- 65. Bryony Hoskins (University of London, England)
- 66. Tõnu Idnurm (Tallinn University, Estonia)
- 67. Amina Kafai El-Khorassani (Ministry of Education, Luxembourg)
- 68. Paulína Koršňáková (NUCEM, Slovak Republic)
- 69. Panthep Larpkesorn (Office of the Education Council, Thailand)
- 70. Kimmo Leimu (University of Jyväskylä, Finland)
- 71. Tamar Liparteliani (NAEC, Georgia)
- 72. Margarita Peña (ICFES, Colombia)
- 73. Valena Plisko (NCES, United States)
- 74. Hendrik van der Pol (UNESCO Institute for Statistics)
- 75. Priit Reiska (Tallinn University, Estonia)
- 76. Martina Roth (Intel Corporation)
- 77. Viive-Riina Ruus (Tallinn University, Estonia)
- 78. Masako Shinohara (NIER, Japan)

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## **APOLOGIES (GA-50/I/03)**

### **GA Representatives**

Abdulghani Al-Bazzaz (Kuwait)  
Peter Archer (Ireland)  
Christiane Blondin (Belgium French Community)  
Žaneta Džumhur (Bosnia and Herzegovina)  
Karine Harutyunyan (Armenia)  
Anil Kanjee (South Africa)  
Evelyn Khoo (Singapore)  
Naguib Khouzam (Egypt)  
Seong-Yul Kim (Korea)  
Eckhard Klieme (Germany)  
Mary Koutselini (Cyprus)  
Galina Kovaleva (Russian Federation)  
Munther Masri (Jordan)  
Maia Miminoshvili (Georgia)  
Zulaikha Mohamed (United Arab Emirates)  
Carlos Pinto Ferreira (Portugal)  
Mansyur Ramly (Indonesia)  
Enrique Roca (Spain)  
Hajar Tahriri Niksefat (Iran)  
Lynne Whitney (New Zealand)  
Margarita María Zorilla Fierro (Mexico)

### **International Coordinators/Members of the Committees**

Larry Hedges, TEG (Northwestern University, United States)  
Lawrence Ingvarson, TEDS-M (ACER)  
Marc Joncas, TEG (Statistics Canada)  
Sharon Senk, TEDS-M (Michigan State University, United States)

### **Honorary Members**

Zoltán Báthory  
Albert Beaton  
Christiane Brusselmans-Dehairs  
Tjeerd Plomp  
Alejandro Tiana

### **Observers**

Anica Aleksova (USAID PEP, Macedonia)  
Mark Bray (IIEP, UNESCO)  
Marguerite Clarke (World Bank)  
Fatemeh Faghihi Ghazvini (RIE, Iran)  
Anders Hingel (European Commission)  
Bojana Naceva (World Bank)  
Jeffrey Puryear (PREAL)  
Kenneth Ross (IIEP, UNESCO)  
Sue Rossiter (NERF, England and Wales)  
Larry Suter (NSF, United States)

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**MONDAY, 5 OCTOBER 2009****09:00 – 10:30 Session I*****Welcoming Addresses***

Dr Seamus Hegarty, Chair, opened the 50<sup>th</sup> IEA General Assembly meeting and introduced Prof Priit Reiska, Vice-Rector for Academic Affairs, Tallinn University.

Prof Reiska welcomed IEA to Tallinn University and spoke of the importance and relevance of studies in education in Estonia and worldwide. He fondly recalled his involvement in TIMSS 2003, and stressed the significance of the study's results for Estonia.

Dr Hegarty thanked Prof Reiska and introduced Prof Viive-Riina Ruus, Professor Emeritus, Tallinn University.

Prof Ruus traced the progress of Estonian education starting in early times, from 13<sup>th</sup> century schools in cathedrals and monasteries and the founding of Estonia's first university in the 17<sup>th</sup> century (Tartu, 1632), to the high rates of literacy achieved in the 19<sup>th</sup> century (96.7%, 1897 census). Educational reforms under the Soviet regime were continued after Estonia regained independence in 1991, with a new competency-based curriculum, and satisfactory results of international educational assessments (TIMSS 2003, PISA 2006) have validated these reforms. However, the OECD's teaching and learning study (TALIS) has highlighted new challenges for Estonian education, showing weak school leadership and pervasive feelings of low self-efficacy among teachers. Prof Ruus concluded by emphasizing the importance of international comparative studies and calling for their greater focus on student happiness and well-being.

Dr Hegarty thanked Prof Ruus for her insights into Estonia's education system, showing how schooling is so closely bound to social development and change.

***Opening Statements***

Dr Hegarty summarized 2009 as a successful year for IEA. Several studies have been completed or are nearing completion (TIMSS 2007, TEDS-M, TIMSS Advanced 2008, ICCS), while others have launched and are making good progress (PIRLS 2011, TIMSS 2011, ICILS). Dr Hegarty called attention to the rising use of IEA studies in public policy and academic research. He noted that while governments are increasingly using IEA study results to support and challenge national policies and to inform teachers and schools, academic researchers are producing a growing number of conference presentations based on IEA data. He sees this as confirmation of IEA's substantial impact at the policy-making, school practice, and academic levels.

Dr Hans Wagemaker, Executive Director of IEA, welcomed all to the IEA General Assembly meeting and thanked its Estonian hosts. He called 2009 a remarkable year in the development of IEA's studies, membership, and other activities. Dr Wagemaker drew special attention to the work of Mr Heiko Sibberns, Co-Director, IEA Data Processing and Research Center (DPC), whose efforts have been instrumental to a new major contract with the German federal government (National Educational Panel Study). In addition to the unique insights the study will provide at the national level, funding from this contract will substantially contribute to the DPC's stability over the next four years. Dr Wagemaker also thanked the many supporters of IEA projects, including the governments of the Netherlands, Japan, and Norway, the United States National Center for Education Statistics, the World Bank, the United Nations Development Programme, the Inter-American Development Bank and the European Commission. He noted the publication of *IERI Monograph Series Volume 2*, which contains a series of articles related to the science of large scale assessment and is published by the IEA-ETS

Research Institute.<sup>1</sup> He also mentioned the upcoming 4<sup>th</sup> IEA International Research Conference in Gothenburg, Sweden (1–3 July 2010), and welcomed everyone to attend.

### **Approval/Amendment of Agenda (GA-50/I/01)**

Dr Hegarty asked participants for their flexibility with respect to necessary changes in the Agenda. These changes are reflected in the Minutes.

That the Agenda be approved:

*Moved:* Seamus Hegarty (Chair)  
*Seconded:* John Ainley (Australia)  
*Carried:* unanimously

The Agenda was adopted.

### **Approval/Amendment of Minutes of 49<sup>th</sup> GA in Berlin, Germany (GA-50/I/02)**

No amendments were made to the Minutes of the 49<sup>th</sup> General Assembly meeting.

That the Minutes be approved:

*Moved:* Seamus Hegarty (Chair)  
*Seconded:* Georgia Kontogiannopoulou-Polydorides (Greece)  
*Carried:* unanimously

The Minutes from Berlin were adopted.

### **Apologies (GA-50/I/03)**

Dr Hegarty referred to the list of invitees who sent apologies (see p. 4 of the Minutes).

### **Election of New Chair (GA-50/I/04)**

*(Dr Hegarty left the room for the duration of this Agenda item.)*

On behalf of the Standing Committee, Dr Tom Loveless (United States) read the proposed resolution to appoint Dr Hegarty as Chair of IEA for 2011–2012, with the possibility of a one-year extension. Dr Wagemaker explained that he will be stepping down as Executive Director in 2013 and Dr Hegarty's willingness to continue as Chair is intended to smooth the transition to new leadership within the IEA Secretariat.

Dr Georgia Kontogiannopoulou-Polydorides (Greece) endorsed the proposal.

That Dr Seamus Hegarty be elected Chair of IEA for the period 2011–2012:

*Moved:* Constantinos Papanastasiou (Cyprus)  
*Seconded:* John Ainley (Australia)  
*Carried:* unanimously

Dr Hegarty was approved as Chair of IEA for the period 2011–2012.

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<sup>1</sup> *IERI Monograph Series: Issues and Methodologies in Large-Scale Assessments* (October 2009, vol. 2) can be obtained from the IEA DPC or the IEA Secretariat.

**11:00 – 12:30 Session II*****Minute of Silence in Memory of Professor Torsten Husén and Professor Neville Postlethwaite***

Dr Hegarty spoke of the passing of two respected Honorary Members of IEA, Prof Torsten Husén and Prof Neville Postlethwaite. He recalled their many achievements and contributions to IEA and to educational research and reform worldwide, spanning half a century. Prof Husén, a founding father and first Chair of IEA, initiated a revolutionary change in educational research, taking education systems as units of analysis and comparing them in terms of educational achievement. Prof Postlethwaite, first Executive Director and second Chair of IEA, made lasting contributions in both education and educational assessment. Dr Hegarty expressed feelings of humility and debt to these outstanding figures and colleagues. The General Assembly participants stood for a minute of silence.

***Approval of New Standing Committee Member (GA-50/I/05)***

Mr Adel Al-Sayed (Qatar) concluded his term as a member of the Standing Committee and Dr Hegarty thanked him for his work. The Standing Committee nominated Dr Serara Moahi (Botswana) as a new candidate.

That Dr Serara Moahi, GA Representative for Botswana, be approved as a member of the Standing Committee:

*Moved:* Tom Loveless (United States)

*Seconded:* Leonor Cariola Huerta (Chile), Kerstin Mattsson (Sweden)

*Carried:* unanimously

Dr Serara Moahi was approved as a member of the Standing Committee.

***Approval of New IEA Member (GA-50/I/06)***

The Standing Committee recommended to the General Assembly the candidacy of the Colombian Institute for the Promotion of Higher Education/Instituto Colombiano para el Fomento de la Educación Superior (ICFES), Colombia, for IEA membership.

Dr Margarita Peña, Director General of ICFES, described ICFES as an autonomous government agency with a mission to contribute to the improvement of the education system's quality, equity, and competitiveness by providing reliable and timely information to national and local authorities and schools. ICFES is responsible for the national assessment of education outcomes in Colombia, and also implemented several international studies, among them IEA's PIRLS 2001, TIMSS 2007, and ICCS, and will participate in PIRLS 2011 and prePIRLS. Dr Peña noted ICFES's current transformation into an institute of research, aided by communities of expertise such as IEA.

That the Instituto Colombiano para el Fomento de la Educación Superior, Colombia, be admitted as an Institutional Member of IEA:

*Moved:* Rosario Sánchez (Spain)

*Seconded:* John Ainley (Australia), Romana Kanovská (Slovak Republic)

*Carried:* unanimously

Dr Peña will represent the education system of Colombia to the IEA General Assembly.

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***Honorary Membership for Mr Kimmo Leimu (GA-50/I/07)***

Prof Jouni Välijärvi (Finland) presented on behalf of the Institute of Educational Research, University of Jyväskylä, the nomination of Mr Kimmo Leimu for honorary membership of IEA. He spoke of Mr Leimu's dedicated service to IEA of over 40 years, highlighting his roles as National Coordinator of IEA studies and as General Assembly Representative for Finland.

That Mr Kimmo Leimu be approved as an Honorary Member of IEA:

*Moved:* Jouni Välijärvi (Finland)

*Seconded:* Georgia Kontogiannopoulou-Polydorides (Greece)

*Carried:* unanimously

Mr Leimu thanked the General Assembly for this honor. He characterized his experiences with IEA as providing new ideas, great challenges, inspiring work, and, most importantly, true friendships. He praised IEA for its unprejudiced approach in valuing work above rank, and called for appreciation of the efforts of all who are involved with IEA, including those at national centers and the thousands of students and educators who make educational assessments possible. He thanked the Finnish Institute for Educational Research, Prof Välijärvi, and his wife, Ms Mirja Leimu, for their support.

***IEA Awards 2009 (GA-50/I/08)***

Dr David Robitaille, Chair, Publications and Editorial Committee (PEC), briefly introduced the Richard M. Wolf and Bruce H. Chopin awards and commented on the fine quality of the works awarded.

The 2009 Richard M. Wolf Award, for a paper published in a refereed journal, monograph, or book that includes analysis of data from an IEA study, was given to Dr Andrew M. Penner for his paper "Gender Differences in Extreme Mathematical Achievement: An International Perspective on Biological and Social Factors," published in the *American Journal of Sociology* (2008, vol. 114).

The 2009 Bruce H. Chopin Award, for a master's or doctoral thesis that makes use of data from an IEA study and employs empirical research methods, was given to Dr Kathleen L. Trong for her doctoral dissertation "Using PIRLS 2006 to Measure Equity in Reading Achievement Internationally," completed at Boston College, United States. There were no applications for this award at the master's level.

Dr Robitaille noted an increasing number of applications for the IEA awards and encouraged all to publicize them to bolster their popularity, importance, and recognition.

***Announcements (GA-50/I/09)***

Mr Richard Deiss, European Commission, announced the international conference "Improving Education: Evidence from Secondary Analysis of International Studies" in Stockholm, Sweden (30 November–1 December 2009), sponsored by the European Commission, the Swedish Research Council, and the Swedish National Agency for Education.

***ICILS Progress Report (GA-50/I/10)***

The International Computer Information Literacy Study (ICILS) Progress Report was given by International Coordinators Dr John Ainley and Mr Julian Fraillon, both of the Australian Council for Educational Research (ACER). Mr Fraillon presented the report.

Mr Fraillon announced progress in ICILS since its proposal last year, and presented the context, construct, design, and implementation plans for the study. He referred to the construct of computer and information literacy (CIL) as the ability to use computers to investigate, create, and communicate in order to participate effectively at home, at school, in the workplace, and in the community. CIL contains two strands: (i) collecting and managing information, and (ii) producing and exchanging information. Research questions for the study focus on investigating differences between and within countries in student CIL, as well as factors in schools, education systems, and student backgrounds related to CIL achievement. ICILS instruments under consideration comprise a student test with authentic computer-based tasks in three modules (two per student) and student, teacher, school, and national context questionnaires. The teacher questionnaire will include explicit links to SITES 2006.

While the teacher, school, and system questionnaires will be delivered online, for administration of the student instrument ACER recommends USB delivery for its good reliability (higher than Web delivery), reasonable cost (less than a portable notebook lab), and potential for teacher administration (while local network delivery requires network administrators). ICILS will test 20 randomly selected students per school across the target grade 8, rather than a whole classroom; grade 4 is an option. Main data collection for ICILS will occur in 2012–2013.

The discussion focused on various aspects of ICILS. Mr Pierre Brochu (Canada) raised an issue of the ICILS framework's accuracy within a constantly changing ICT environment and also asked about the training of test administrators and teacher sampling. Ms Lorna Bertrand (England) inquired about the process of item development and study cost, and Dr Lars Qvortrup (Denmark) asked for clarification of the CIL concept and its ethical aspects. Mr Fraillon indicated that although the development of specific skills in students is sensitive to changing technology, the overarching concept of progress contained within the study's CIL construct focuses on general skills that have remained stable in the CIL dialogue over time. He also explained that the study design aims for administration of the assessment by teachers whenever possible, with the aid of country-level technical support staff trained by the International Study Center (ISC). The teacher questionnaire will be administered to teachers of all subjects, which reflects the growing belief in teachers' shared responsibility for CIL learning across disciplines. Mr Fraillon confirmed that instruments will be developed collaboratively (as in other IEA studies), with a project advisory group and extensive country consultation and item review. Clarifying the CIL construct, he stressed that it applies to the effective use of information within the computer environment, so it bridges both notions of computer and information literacy. The construct does not include a distinct ethical strand because of concerns with cultural differences in the ethics of communication, but subsumes ethical considerations under questions about appropriate communication and misinformation.

Mr Wagemaker provided information about study funding and viability: ICILS requires the participation of 25–30 countries, with the same fee structure as PIRLS 2011 (15,000 USD + 15,000 EUR per year for five years).

Mr Richard Deiss, European Commission, confirmed an interest in this project and the intention of the Studies and Analysis Unit of the DG EAC to support the project in discussions within the Commission, and encouraged all countries to participate. Ms Martina Roth, Intel Corporation, also expressed interest in the study on behalf of Intel.

Dr Hegarty thanked Mr Fraillon, with the hope that the European Commission and other funders will support countries interested in ICILS.

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**14:00 – 15:30 Session III*****TEDS-M Progress Report (GA-50/I/11)***

The Teacher Education and Development Study in Mathematics (TEDS-M) Progress Report was presented by Study Director Dr Teresa Tatto and Co-Director Dr Jack Schwille, both of Michigan State University. Dr Tatto summarized TEDS-M as the first IEA study of tertiary education, which surveyed institutions, teacher educators, and future mathematics teachers from 17 countries. The study covers national mathematics teacher education policies and program characteristics, opportunity to learn, and outcomes of mathematics-related teaching knowledge (subject and pedagogical) of future teachers. Main data collection occurred in 2007–2008, with a three-stage release of the reports and database planned for 2010, starting in January with a first international findings report. Dr Schwille continued the presentation by focusing on the TEDS-M design strategy of grouping teacher education programs by type. He explained that the study team sought to find a solution for carrying out international comparisons in the situation of unexpectedly high program diversity. Programs within each country were grouped for international comparison according to their classification as primary (4 groups) or secondary (3 groups), specialist or generalist, and the maximum grade level at which future teachers would be qualified to teach.

Ms Anne-Berit Kavli (Norway) and Dr Pavla Zieleniecová (Czech Republic) both expressed concerns about how important national differences will be approached and presented in the international report, and in this context, about the report's quality. Dr Tatto explained that with plentiful data and carefully considered program groupings on the basis of country reports, collected syllabi, and additional information from National Research Coordinators (NRC), sound international comparisons can be made, but they will be of a more qualitative nature than, for example, in TIMSS. Dr Schwille added that one volume of the international report will be devoted to presenting teacher education policies in their national context, with one chapter designated for each country receiving two rounds of feedback from national centers.

Dr Hegarty noted the challenge posed by the great amount of program diversity, and thanked Dr Tatto and Dr Schwille for their presentation.

***ICCS Progress Report (GA-50/I/12)***

The International Civic and Citizenship Education Study (ICCS) Progress Report was given by Project Coordinator Dr John Ainley and Research Director Dr Wolfram Schulz, both of ACER. Dr Schulz presented the report.

Dr Schulz outlined achievements of the ICCS project since the previous General Assembly. This study with 38 participating education systems focuses on aspects of knowledge, understanding, and perception related to civic and citizenship education, with the aim of describing how young people in participating countries are prepared to undertake their roles as citizens. ICCS comprises a student cognitive test, three optional regional student modules (European, Latin American, and Asian), and student, teacher, school, and national context questionnaires. The target grade for assessment is 8, with grade 9 as a national option. Dr Schulz highlighted the collaborative development and innovative content of the regional modules which investigate specific themes and topics. In 2009, the main survey data collection was concluded and half of the participating countries submitted their data files. Currently, data analysis and preparations for reporting are underway. Dr Schulz reported some concern over low preliminary participation rates, particularly for the teacher survey.

Mr Michel Lanners (Luxembourg) conveyed some concerns among schools in Luxembourg over the difficulty level of the student instruments and concurrent administration of ICCS

and PISA. Ms Lorna Bertrand (England) inquired about publicity and dissemination plans, particularly for the European regional report, and Mr Pierre Brochu (Canada) asked about further studies of civic and citizenship education. Dr Schulz explained that the ICCS test (as well as other instruments) was developed with input from all participating countries. He also mentioned that the ISC was aware that ICCS and PISA data collection would occur at the same time, and sampling teams from both studies worked together to minimize assessment overlap in schools whenever possible. Dr Wagemaker said that the international and European reports will be released together, possibly at an event with the European Commission. Dr Wagemaker also gave tentative thoughts on the timing of repeat studies, with, possibly, new cycles of ICCS being offered in 2014 and TIMSS Advanced in 2015 (alongside TIMSS). Mr Richard Deiss, European Commission, confirmed European interest in ICCS data.

### ***Demonstration of ICILS Module***

Mr Julian Fraillon, International Coordinator of ICILS, provided a demonstration of a sample ICILS module, which requires students to complete several computer-based tasks (e.g., following a link in an email to locate required information in a blog, creating an invitation according to a specific communicative purpose), using custom-built software following existing software conventions. Mr Fraillon explained that the module contains sequences of tasks linked by a common theme (typically academic). He showed how the software is designed to respond and assign varying levels of credit to a variety of possible actions in order to assess the level at which students can use technology to manage information and communicate effectively.

### **16:00 – 17:30 Session IV**

#### ***TIMSS Advanced 2008 Progress Report (GA-50/I/13)***

The Trends in International Mathematics and Science Study (TIMSS) Advanced 2008 Progress Report was given by Co-Directors Dr Michael Martin and Dr Ina Mullis, both of Boston College, and Dr David Robitaille, Chair of PEC.

Dr Martin introduced TIMSS Advanced, which assesses final-year secondary school students enrolled in advanced mathematics and/or physics courses. Study instruments consist of an achievement test in each subject, and student, teacher, school, and curriculum questionnaires. The advanced mathematics and physics frameworks each contain content (three for advanced mathematics, four for physics) and cognitive (knowing, applying, reasoning) domains, with one IRT scale for each subject linking to the 1995 assessment. Ten education systems participated in TIMSS Advanced 2008, five of them yielding trends from 1995. Dr Martin announced the completion of the study; the international report and database will be released on 9 December 2009 in Oslo, Norway.

A confidential preview of the *TIMSS Advanced 2008 International Report* followed, presented by Dr Mullis and Dr Robitaille.

Dr Pavla Zieleniecová (Czech Republic) stated concern over possible oversimplification of international comparative results by the media, when national school contexts of the students in this study differ so much, and Dr Hermann Josef Abs (Germany) inquired about the construction of student rankings. Ms Lorna Bertrand (England) asked whether study data will provide information on students' attitudes, engagement, and career aspirations, and the relationship between socio-economic factors and student achievement. Dr Martin answered that the study team and national centers chose international benchmarks (providing the percentage of students reaching each benchmark) as the most informative way of gauging performance, particularly with the small populations under study. He also explained that the international report provides rich contextual detail on curriculum, student backgrounds, and national approaches to education. Dr Mullis added that the study also collected information on student attitudes,

motivation, and socio-economic backgrounds and gave a few examples of the relationships studied.

Dr Hegarty thanked the study team for their work and the nostalgic look back at secondary school mathematics and physics.

### ***PEC Annual Report (GA-50/III/17)***

Dr David Robitaille, Chair of PEC, announced 2009 as a busy year for the committee, with work focusing on the review of publications from four projects: *IERI Monograph Series Volume 2*, the TEDS-M tests used to assess mathematics achievement, the TIMSS 2007 mathematics and science draft reports, and the TIMSS Advanced 2008 draft report. Work in the coming year will include a review of the TEDS-M report *Mathematics Teaching Preparation in 17 Countries: First Findings*. Dr Robitaille appealed to all study directors to involve PEC in the development of their publications as early in the process as possible to maximize the opportunity for feedback.

Dr Hegarty thanked PEC colleagues for their vital work in ensuring the quality of all IEA publications.

## **TUESDAY, 6 OCTOBER 2009**

### **09:00 – 10:30 Session V**

#### ***PIRLS 2011 Progress Report (GA-50/II/14)***

The Progress in International Reading Literacy Study (PIRLS) 2011 Progress Report was given by Executive Directors Dr Ina Mullis and Dr Michael Martin, Boston College. Dr Mullis presented the report.

Dr Mullis described the development of PIRLS 2011 during the last year. PIRLS 2011 is the third cycle in the PIRLS series (2001, 2006), which evaluates fourth grade reading comprehension. The PIRLS questionnaires were updated for this assessment with new scales of effective learning contexts that are grounded in the literature. Over 50 education systems plan to participate. Dr Mullis discussed two new challenges for this cycle: joint administration of PIRLS 2011 and TIMSS 2011 (over 35 education systems), and prePIRLS for countries whose fourth grade students are at an earlier stage of reading development (probably 10-12 countries). While joint survey administration provides a unique opportunity for assessment and reporting of reading, mathematics, and science achievement in the same group of students, it also requires additional coordination effort. Among others, a modular strategy for student and teacher questionnaires (grouping questions related to PIRLS only, TIMSS only, or both) was developed, and school and home (parent) questionnaires were made the same for both studies. In 2009, *PIRLS 2011 Assessment Framework*<sup>2</sup> was published and instruments for the field test were finalized and sent to the national centers for translation.

Dr Hegarty thanked the study team for their swift progress. Mr Michel Lanners (Luxembourg) asked about possible benefits of using the prePIRLS test for younger students (second grade), but Dr Mullis stressed that the prePIRLS test is most appropriate for the maturity level of the target age group (9.5 years). Ms Lorna Bertrand (England) and Mr Kimmo Leimu (Honorary Member) both expressed concerns about the differing effects of joint vs. separate survey administrations (PIRLS and TIMSS, PIRLS only, or TIMSS only) on student performance. Dr Mullis stated these will be controlled in the field test.

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<sup>2</sup> Mullis, I.V.S., Martin, M.O., Kennedy, A.M., Trong, K.L., & Sainsbury, M. (2009). *PIRLS 2011 assessment framework*. Chestnut Hill, MA: Boston College.

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**TIMSS 2007 Final Report (GA-50/II/15)**

The TIMSS 2007 Final Report was given by Co-Directors Dr Ina Mullis and Dr Michael Martin, Boston College. Dr Martin presented the report.

Dr Martin summarized the final developments leading up to the completion of TIMSS 2007 in February 2009. 59 education systems, 8 benchmarking entities, and over 425,000 students participated in this fourth cycle of TIMSS, which assesses mathematics and science achievement at the fourth and eighth grades. After publishing two volumes of the TIMSS 2007 encyclopedia and the international mathematics, science, and technical reports,<sup>3</sup> the TIMSS 2007 international database and user guide<sup>4</sup> were released in January 2009.

**TIMSS 2011 Progress Report (GA-50/II/16)**

The TIMSS 2011 Progress Report was prepared by Executive Directors Dr Ina Mullis and Dr Michael Martin, Boston College. Dr Martin presented the report.

Dr Martin introduced TIMSS 2011, which launched in February 2009 and builds on the expertise of four previous cycles, welcoming more than 70 new and returning education systems. In 2009, *TIMSS 2007 Assessment Frameworks* was finalized and published.<sup>5</sup> Background questionnaires gather information on curricula, national/community, school, and classroom contexts, as well as on student attitudes and behaviors, and have been updated and coordinated with PIRLS 2011 for joint administration at the fourth grade. Eighth grade questionnaires were also finalized and released to countries for translation to national languages. Work on new mathematics and science test items to replace those released at the end of 2007 was initiated. The field test will be administered by all participants during the period March–April 2010.

Mr Piero Cipollone (Italy) asked whether any countries will adopt a mixed sampling scheme for the joint PIRLS/TIMSS assessment at grade 4 (both assessments administered in some classrooms, only one in others), to control for the study design effects discussed during the PIRLS 2011 presentation. According to Dr Martin, no countries are planning this strategy; for the joint assessment, a counterbalanced design has been developed by sampling experts, where half of the classrooms sampled in a participating education system will administer TIMSS 2011 on day 1 and PIRLS 2011 on day 2, and half in the opposite order. Dr Paul van Oijen (the Netherlands) asked about the development of trend analysis. Dr Martin responded that the lengthening TIMSS trend line will provide greater opportunities in this cycle to examine factors (such as changes of population, omission rates, and policies) that may affect differences within countries.

Dr Hegarty thanked the study team for their efforts.

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<sup>3</sup> Mullis, I.V.S., Martin, M.O., Olson, J.F., Berger, D.R., Milne, D., & Stanco, G.M. (Eds.). (2008). *TIMSS 2007 encyclopedia* (Vol. 1 & 2). Chestnut Hill, MA: Boston College.

Mullis, I.V.S., Martin, M.O., & Foy, P. (with Olson, J.F., Preuschoff, C., Erberber, E., Arora, A., & Galia, J.) (2008). *TIMSS 2007 international mathematics report*. Chestnut Hill, MA: Boston College.

Martin, M.O., Mullis, I.V.S., & Foy, P. (with Olson, J.F., Erberber, E., Preuschoff, C., & Galia, J.) (2008). *TIMSS 2007 international science report*. Chestnut Hill, MA: Boston College.

Olson, J.F., Martin, M.O., & Mullis, I.V.S. (Eds.). (2008). *TIMSS 2007 technical report*. Chestnut Hill, MA: Boston College.

<sup>4</sup> Foy, P. & Olson, J.F. (Eds.). (2009). *TIMSS 2007 international database and user guide* (DVD). Chestnut Hill, MA: Boston College.

<sup>5</sup> Mullis, I.V.S., Martin, M.O., Ruddock, G.J., O'Sullivan, C.Y., & Preuschoff, C. (2009). *TIMSS 2011 assessment frameworks*. Chestnut Hill, MA: Boston College.

### ***TEG Annual Report (GA-50/III/18)***

Dr Hans Wagemaker, Chair of TEG, summarized the 4 October 2009 meeting of the Technical Executive Group (TEG), which provides technical advice and quality assurance for IEA studies. During this meeting, TEG focused on ICILS, TEDS-M, and ICCS. ICILS is at an early stage of development, with feedback anticipated from NRCs once participation in the study initiates. TEDS-M's unique challenges are being addressed by study directors in consultation with NRCs; Dr Wagemaker announced that reporting will be delayed but data will be released to national centers according to schedule. Data analysis for ICCS continues, as study directors await final response rates.

### **11:00 – 12:30 Session VI**

#### ***Dissemination of TIMSS 2007 as a Trend Study***

Dr Hegarty informed the General Assembly that scheduled panelist Dr Hajar Tahriri Niksefat (Iran) was unable to attend the meeting (a copy of her presentation was distributed<sup>6</sup>). He then opened the floor to the panel on the dissemination of TIMSS 2007 trend results.

**Mr Sándor Brassói** (Hungary) mentioned that it took several years and a number of initiatives before media and the public started to show interest in the results of international studies. At present there are websites and discussion forums for specific projects (TIMSS, PISA, and PIRLS). In the case of TIMSS 2007, free copies of the national report were widely distributed to expert committees, participating schools, and institutions. In addition, conferences and workshops were held to present results and to train researchers on use of the data. These initiatives activated various interest groups (e.g., teacher associations), stimulated research on teaching, and contributed to professional and political debates on interpretations of TIMSS 2007 trend data (strong but decreasing achievement levels), TIMSS vs. PISA results (higher TIMSS scores), and the learning environment (lower student satisfaction and self-confidence levels, high percentages of female mathematics and science teachers, heavy reliance on textbooks).

Ms Lorna Bertrand (England) suggested that in order to increase visibility of the international dimension of the studies, international study websites should link to national websites, and countries should invite speakers from other regions to provide a broader context for study results; Mr Brassói endorsed both suggestions.

**Dr Jit Cheung** (New Zealand) (presentation prepared with Ms Robyn Caygill, TIMSS 2007 NRC) traced results and reactions through three cycles of TIMSS in New Zealand at the fourth grade. Beginning with TIMSS 1995, Dr Cheung described how low-to-average performance levels in mathematics and science prompted a new mathematics/science taskforce and numeracy development projects, which were later publicly lauded when TIMSS 1995–2003 trend data showed a significant increase in performance in both subjects, particularly among ethnic minorities. TIMSS 2007 results, with science achievement down to 1995 levels and mathematics achievement decreased slightly, triggered examinations of national and international curriculum standards, of the recent reduction in science teaching/preparatory hours, and of PISA 2006 scores (which were higher than TIMSS 2007).

Dr Jouni Välijärvi (Finland) asked whether New Zealand's change of government in 2008 influenced reception of the TIMSS 2007 results, and Dr John Ainley (Australia) asked whether possible shifts in curriculum have been examined in connection to TIMSS 2007 achievement. Dr Cheung responded that the new government has been very active in educational reform, and research on curriculum standards is ongoing.

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<sup>6</sup> For this and other presentations, see [http://www.iea.nl/50th\\_ga.html](http://www.iea.nl/50th_ga.html).

**Dr Ryo Watanabe** (Japan) discussed Japan's international rankings in IEA's fourth and eighth grade mathematics and science assessments (since the First International Mathematics Study in 1964), contrasting the country's position as one of the top performing education systems overall and its rather negative portrayal by the Japanese media. PISA 2003 and TIMSS 2003 results were perceived nationally as showing Japan's apparent 'decline,' and the Ministry of Education launched a new national assessment of student performance as a census survey. TIMSS 2007 results were interpreted as a sign that Japan's 'decline' had ceased, but received little attention overall. While Japanese students still belong to the top group internationally, TIMSS 2007 trend results show changes in various aspects of student life, such as satisfaction levels (rising at grade 4 and low at grade 8) and the way students spend their time (less homework, more TV).

Dr Tom Loveless (United States) and Mr Piero Cipollone (Italy) asked about the dissemination and costs of national census data. Dr Watanabe explained that each prefecture handles decisions on the distribution of school- and student-level data. He confirmed that the costs of this assessment are high (approx. €50 million), since it includes over 2 million students in 75,000 schools.

Ms Bertrand asked panelists for advice on keeping TIMSS in the public interest. Dr Cheung recommended focusing on a country's potential for improvement, Mr Brassó emphasized the importance of national reports, and Dr Watanabe stressed continuing participation in TIMSS to lengthen the trend line.

Dr Hegarty thanked presenters for their insights into the national context of data dissemination.

### ***Financial Report (GA-50/III/20-22)***

The IEA Financial Report was given by Dr Hans Wagemaker, Executive Director, and Mr Jur Hartenberg, Financial Manager. Mr Hartenberg referred General Assembly members to IEA's "Annual Report for the Year 2008" and provided an overview of IEA's financial position, 2009 forecast, and 2010 budget. He also distributed an updated list of outstanding fees.

Mr Hartenberg first presented IEA's balance sheet as of 31 December 2008. Fixed assets (mainly computer hardware and software) invoiced at \$1.9 million were 70% depreciated. Receivables decreased significantly to \$4.4 million, due to incidental World Bank receivables of \$2.5 million in 2007. Liabilities were well within cash assets of \$3.2 million. As 2008 is a transitional year for the PIRLS and TIMSS cycles, project funds decreased by \$1.6 million from 2007. Net assets increased steadily to \$4.2 million, up from \$2.8 million in 2003. With respect to IEA's profit and loss statement for the year ending 31 December 2008, Mr Hartenberg stated that revenue and operating expenditures increased 16% over 2007, covering 6 IEA studies and over 30 national DPC projects; overhead costs represented 9.7% of total operating expenditure (up from 8.8% in 2007). Although 2009 activity levels are expected to be 5% lower than 2009 budget figures, excess revenue is expected to be \$115,000 higher than projected. 2010 revenue and operating expenditures are expected to increase 12% over 2009.

Mr Hartenberg concluded that IEA operated under extremely tight margins in 2008, affected by declines in interest rates and the US dollar, with excess revenue at only 0.8% of the total. He pointed out that unpaid fees accounted for 55% of receivables in 2008, and although payment terms are 30 days, the average number of credit days (102) nearly doubled since 2003. In 2008 only 16% of fees were paid on time and 41% within two months. Mr Hartenberg demonstrated the potential impact of timely payments, showing that with average monthly expenses of \$1.3 million (2008), IEA's current receivables figure of \$4.6 million could more than double cash assets and extend liquidity from 2.5 to 6 months.

Mr Hartenberg, Dr Wagemaker, and Dr Hegarty strongly appealed to all member education systems and those participating in IEA studies to pay debts and fees on time, and to communicate with IEA if an invoice cannot be paid within 30 days. A summary of outstanding fees will continue to be distributed biannually.

#### **14:00 – 15:45 Session VII**

##### ***Interpretation of Trends in IEA Studies***

Dr Ina Mullis and Dr Michael Martin, Co-Directors of TIMSS and PIRLS, gave a presentation on the methodology of measuring trends in TIMSS and PIRLS.

Dr Mullis discussed the benefits and challenges of trend measurement. She explained that trend studies allow policy-makers to direct and evaluate educational reforms by providing important information on changes in student achievement and teaching and learning contexts. In particular, trend measurement in TIMSS and PIRLS allows for the study of achievement at a single grade level over time (TIMSS, PIRLS), and within the same cohort of students across multiple grades (TIMSS). Dr Mullis described a series of innovations in trend measurement, from equating analysis, to p-values for measuring item difficulty, to Item Response Theory (IRT) scaling (the current standard for studies like TIMSS and PIRLS). Although IRT scaling requires many items for reliability, it is robust against inevitable item changes across assessments (some items become outdated or irrelevant). She explained that the challenge in measuring trends is to preserve the comparability of scores across cycles, even as assessments change. In TIMSS and PIRLS, this is done by introducing new items gradually, while keeping substantial portions of each assessment constant (in the current design, 1/3 of items are common to the previous cycle, 1/3 common to the assessment two cycles ago, and 1/3 new).

There was a short discussion on trend measurement in the context of educational reform, using the example of Slovenia where the school starting age was changed from 7 to 6. PIRLS was conducted there at grade 3 before the reform (2001) and at grade 4 after (2006), so students' average age in the study remained the same while their years of schooling increased. Trend results showed significant improvement in reading achievement from 2001 to 2006, and might be used as evidence of the positive impact of Slovenia's educational reform. Dr Hermann Josef Abs (Germany) noted, however, the complexity of measuring success in educational reform—and in the case of Slovenia, of evaluating the score increase relative to the investment of one additional year of school.

Dr Martin focused on the technical aspects of trend measurement in TIMSS and PIRLS. He first presented an overview of IRT, which uses items with known properties (parameters) to estimate student ability. TIMSS and PIRLS use a three-parameter IRT model, with parameters for item difficulty, item discrimination, and guessing. The general process of establishing comparable scores from two assessments involves: (i) calibration of the previous assessment, (ii) concurrent calibration of the current and previous assessments (using data from countries participating in both), (iii) a linear transformation matching previous assessment scores under the two calibrations, and (iv) application of the same linear transformation to current assessment scores. The difference in proficiency scores for the current and previous assessments under concurrent calibration represents the change in achievement, but since the two calibrations' estimates come from different sets of items (one includes items unique to the current assessment, one does not), the change is placed within the previous assessment's reporting metric to yield trends.

Dr Martin noted that under this procedure, each assessment is linked with its predecessor, going back to the first assessment in the trend line (the only one with non-concurrent calibration). For TIMSS, this means that the scale for TIMSS 1995 (set to a mean of 500 and standard deviation of 100) forms the common metric on which all

subsequent assessment scores are placed. Dr Martin stressed the versatility and reliability of the methodology for measuring trends in TIMSS and PIRLS, which has accommodated major framework and booklet design changes, and has produced consistent country scores across calibrations.

Ms Lorna Bertrand (England) and Dr Tom Loveless (United States) inquired about patterns in the selection of common items and the participation of trend countries, respectively, as a possible source of bias. Dr Martin and Dr Mullis clarified that trend items are not selected individually, but as blocks that are scheduled for release after three consecutive cycles and contain many items. They noted overlap in the groups of countries that do/do not participate in two consecutive cycles. Ms Valena Plisko (NCES) asked about the use of bridge studies. Dr Mullis pointed to the recent introduction of calculators in TIMSS as an example of an assessment change that did not require a bridge study (instead, the test contained trend items first, to be assessed in the old way, and new items second). Mr Piero Cipollone (Italy) asked about measuring trends between cycles with no common items (e.g., TIMSS 1995, TIMSS 2007). Dr Martin explained that the concurrent calibrations linking all items of one cycle to all items of the previous cycle allow all assessments of a series to be linked without relying on single items linking.

Dr Hegarty thanked Dr Mullis and Dr Martin for their informative presentation.

### **16:10 – 17:30 Session VIII**

#### ***Discussion Groups: Dissemination of Trend Results of PIRLS and TIMSS***

Participants gathered into pre-assigned groups to discuss the dissemination of trend results of PIRLS and TIMSS.

## **WEDNESDAY, 7 OCTOBER 2009**

### **09:00 – 10:45 Session IX**

#### ***Estimating Students' Performance at the Subnational Level***

Dr Hegarty opened the floor to the panel presentation on estimating student performance at the subnational level.

**Ms Valena Plisko**, National Center for Education Statistics (United States), discussed approaches to estimating state performance in PISA and TIMSS. In 1999, the US government funded TIMSS participation for 13 out of 50 states, but only Indiana (TIMSS 2003), Massachusetts (TIMSS 2007), and Minnesota (TIMSS 2007) have participated since. Growing economic competition from abroad has activated national and state interest in developing common standards to evaluate school and state education quality in an international context. Ms Plisko described four strategies for using international assessment scores to estimate state-level equivalent scores and benchmarks: (i) small area estimation, (ii) spiraling items, (iii) statistical moderation, and (iv) spiraling blocks. Small area estimation uses national TIMSS scores and other assessment/demographic data to estimate parameters for calculating TIMSS equivalent school and state scores. A disadvantage of this approach is that it assumes the explanatory variables used in the estimation hold in all states, but this is not the case (e.g., Asian students perform less well, on average, in Hawaii than in Massachusetts). Statistical moderation converts the mean and standard deviation of the National Assessment of Educational Progress (NAEP) scale to the TIMSS scale. It assumes that all assessments operate in similar ways and assess similar things. Ms Plisko showed using an example of TIMSS 2007 scores for Massachusetts and Minnesota that statistical moderation estimates are more accurate than small area estimation, but still do not hold across all grades and subjects. Spiraling

items and spiraling blocks embed international assessment items and blocks, respectively, into state or national assessments in order to estimate item parameters and link assessment scores. The challenge with these strategies is that the use of embedded items requires international approval, and items are assumed to have similar parameters in differing assessment contexts. Both approaches are under development; spiraling TIMSS blocks into the NAEP is planned for 2011.

**Dr John Ainley**, Australian Council for Educational Research (Australia), described the country's experiences in estimating TIMSS state and territory scores. In addition to TIMSS, PISA, and PIRLS (for the first time in 2011), annual census surveys in literacy and numeracy and triennial sample assessment programs (civics, literacy, science) are conducted in all Australian jurisdictions (six states and two territories). While education is a state responsibility, the federal role in this area has increased over the past 30 years, moving towards greater centralization accompanied by greater interest in monitoring outcomes under the national education reform agenda. There is also growing interest in measuring state and territory performance, but estimating scores for smaller jurisdictions has been difficult. For instance, schools in the Northern Territory with very small populations are not sampled, which affects local estimates (if not national ones); Tasmania also has a lot of rural isolation. Disproportionate sampling (the approach used in TIMSS 2007) aims to improve precision for smaller jurisdictions by sampling greater proportions of the schools in them. The concern with this approach, however, is the additional cost and testing burden on students. At the same time, there is criticism that results are not accurate enough for policy development, due to large sampling errors and confidence intervals. Dr Ainley indicated two current approaches for improving precision of jurisdiction achievement estimates: increase the sample size, and use stratification variables more closely related to TIMSS scores. For TIMSS 2011, the sample size was increased in all jurisdictions except for the Northern Territory and Tasmania, and a school socioeconomic index based on census data was built into the stratification process. National Assessment Program—Literacy and Numeracy (NAPLAN) data was used to form groups of achievement, and schools with high, medium, and low performing students were sampled proportionally.

Mr Pierre Brochu (Canada) asked about funding for national assessments. Ms Plisko answered that in the US, they are financed by the federal government. In Australia, Dr Ainley indicated, financing is split between national and jurisdictional governments. Mr Brochu also asked about sampling bias in the selection of high/low performance schools in Australia. Dr Ainley clarified that every school has a defined chance of being sampled, but the stratification ensures that groups are represented in the sample the same way they are in the population. Mr Piero Cipollone (Italy) inquired about the calculation of small area estimates, and Ms Lorna Bertrand (England) asked about item placement for the embedding approaches. Ms Plisko gave some examples of the data used for small area estimation. She responded that NAEP coordinators will work closely with international study experts to ensure that embedded items work the same way in both assessments. Mr Brochu asked about the value of benchmarking subnationally. Ms Plisko answered that US state assessments are set at a very low level, and the percentage of students judged to be proficient on the basis of state vs. national assessments differs. Thus, it is necessary to look outside the US to benchmark performance at an international standard.

Dr Hegarty thanked Ms Plisko and Dr Ainley for their interesting perspectives on subnational score estimation.

### ***DPC Annual Report (GA-50/III/19)***

Dr Wagemaker acknowledged the significant contributions of Mr Dirk Hastedt and Mr Heiko Sibberns, Co-Directors of the IEA Data Processing and Research Center (DPC). He invited them to speak about recent developments and activities at the DPC.

Mr Sibberns gave a presentation on the process of computer-based coding of constructed response items, outlining the steps and responsibilities involved. He noted that several countries have expressed interest in using the DPC's Coding Expert software for TIMSS 2011 and PIRLS 2011. Mr Sibberns described five steps in the coding process: (i) preparation, (ii) coder recruitment, (iii) coder training, (iv) coding, and (v) quality control. Coding preparation at the DPC involves defining items, preparing coding instructions, scanning test booklets, and configuring the Coding Expert Manager. The Coding Expert Manager provides sophisticated package management to facilitate the exchange of coding materials and results between the DPC and national centers, where coding occurs. Each national center is responsible for recruiting coders who are prepared to follow coding guidelines and fulfill the technical requirements (Windows PC, high bandwidth internet connection) for computer-based coding. National centers are also responsible for coder training, including assigning training material, teaching coding instructions, and comparing results using the Coding Expert Trainer, which can identify items of low coder agreement and allows annotations of difficult items during coding. Mr Sibberns noted that DPC workshops for training in the Coding Expert software are envisaged. He emphasized that the Coding Expert software significantly reduces coding time and enforces valid codes.

Ms Kerstin Mattsson (Sweden) asked about implementation so far. Mr Sibberns explained that the computer-based coding process has been successfully used at the DPC, but not yet in national centers (Norway and Sweden will be among the first). Dr Hegarty added that the DPC is open to inquiries from interested countries.

Mr Hastedt outlined major milestones and activities of the DPC over the past year, including its involvement in international and national studies, training activities, publications, and staff and office changes. IEA project work included completing the TIMSS 2007 international database, preparing the TEDS-M international database, processing ICCS main survey data, and re-designing and improving the within-school sampling software for joint survey administration of PIRLS 2011 and TIMSS 2011. The DPC assisted with organization, analysis, and reporting for the OECD's TALIS (including completing the international database), and developed data management software for PIAAC. Substantial work has also gone into various German national studies (state comparisons, National Educational Panel Study). Over the past year, the DPC conducted numerous training activities and database and analysis seminars at the DPC, at international conferences, and through the IEA-ETS Research Institute, in addition to commissioned trainings and consultancy work. Mr Hastedt observed that these training seminars, which teach researchers how to work with and analyze IEA data, have increased the prominence of IEA data in the academic community. In 2008, the DPC published *IERI Monograph Series Volume 2* and played a major role in preparing the SITES 2006 and TALIS technical reports. Staff members also published a number of research articles. Changes within the DPC include personnel changes within individual units, additional staffing to accommodate upcoming studies, and a new server room.

Dr Hegarty underscored the professional training opportunities and technical expertise provided by the DPC, and thanked Mr Sibberns and Mr Hastedt for their presentations.

## **11:00 – 12:30 Session X**

### ***Feedback from Discussion Groups***

**Group 1 Chair:** Mark Nemet (Austria), *Rapporteur:* Frederick Leung (Hong Kong SAR)  
*Participants:* John Ainley (Australia), Adel Al-Sayed (Qatar), Alhaja Mulikat Ayoni Bello (WAEC, Ghana), Júlíus Björnsson (Iceland), Jasminka Buljan Culej (Croatia), Richard Deiss (European Commission), David Robitaille (PEC Chair).

Dr Leung summarized a group discussion focused on the responsibilities and challenges of trend reporting. He noted considerable variation in the participation histories of the

countries represented by the group, with Australia having participated in every TIMSS-related cycle since FIMS and FISS, and Qatar and Croatia anticipating PIRLS trend and baseline data, respectively, for the first time in 2011. He reported questions raised about the notion of trend (how many cycles create a trend?) and about explaining performance differences between studies (TIMSS vs. PISA) and cycles (are changes ‘fluctuations’ or ‘trends’? what causes them?). Discussants considered it a responsibility of researchers to deliver a fuller picture of study results, by going beyond average scores and international rankings. One major discussion point was that trend and achievement results should be useful for different audiences. For instance, data should be presented in a way that provides information to teachers on pedagogical practices, while the reliability of studies must be demonstrated to ministers of education to assure their confidence in trend results.

**Group 2 Chair:** Piero Cipollone (Italy), *Rapporteur:* Pavla Zieleniecová (Czech Republic)  
*Participants:* Pierre Brochu (Canada), Andris Kangro (Latvia), Romana Kanovská (Slovak Republic), Anne-Berit Kavli (Norway), Paulína Koršňáková (NUCEM, Slovak Republic), Leen Vandeputte (Belgium).

Ms Zieleniecová described experiences of the dissemination of PIRLS and TIMSS results in Group 2 countries, organizing them around five topics: (i) reporting focus, (ii) timing of release, (iii) type of reports, (iv) audience, and (v) use of data. In most of the countries, the results of an individual cycle were reported before trend results, and thus received greater media attention. National press releases typically occurred on the same day as the international release; some countries offered further presentations, seminars, and conferences. Reporting also varied, with some countries producing thematic (Canada, Norway), regional, or school (Flemish Belgium, Czech Republic) reports in addition to the standard national report on study results. Group members widely recognized the importance and difficulty of accurate communication with the media, but also pointed to a number of other educational stakeholders (ministers of education, teachers, educational specialists) interested in PIRLS and TIMSS data. Lastly, Ms Zieleniecová highlighted possibilities for further use of data in regional analyses (Czech Republic), multi-study comparisons (PISA and TIMSS, Italy), and doctoral theses.

**Group 3 Chair:** Mojca Straus (Slovenia), *Rapporteur:* Paul van Oijen (The Netherlands)  
*Participants:* Hermann Josef Abs (Germany), Jit Cheung (New Zealand), Saltanat Nogaibalanova (Kazakhstan), Ester Ogena (Philippines), Constantinos Papanastasiou (Cyprus), Jouni Välijärvi (Finland).

Dr van Oijen summarized several items of discussion related to trend reporting. Group members suggested involving more countries in IEA studies by relating measures of educational performance to existing political interests in international standings and comparisons (e.g., introducing PIRLS and TIMSS into OECD forums, global competitiveness index). Dr van Oijen indicated the importance of timing with respect to the release of results (avoid releasing results of different studies in close succession), publicity of reports (emphasize ‘new’ results in subsequent reports), and interpretation of trends (if possible, evaluate progress within the time frame of a politician’s term of office). Discussants suggested that researchers be aware of the political agendas and purposes for which study results may be used—for instance, declines tend to promote policy changes, while improvements may be used, for example, to support re-elections. Questions by group members concerned the role of European Union benchmarks, the usefulness of the benchmark for reading at the low performance level, and the definition of ‘trend.’

**Group 4 Chair:** Lars Qvortrup (Denmark), *Rapporteur:* Tom Loveless (United States)  
*Participants:* Lorna Bertrand (England), Leonor Cariola Huerta (Chile), Valena Plisko (NCES, United States), Rosario Sánchez Núñez-Arenas (Spain), Claude Sauvageot (France), Ryo Watanabe (Japan).

Dr Loveless outlined a number of discussion points and conclusions. First, he noted several external factors that can help dissemination, such as releasing regional results jointly following the international release, and linking international and national study websites. Next, he described various suggestions for tailoring and widening the dissemination of study results to different audiences and contexts: media, ministries of education, practitioners and schools, parents, universities (for secondary research), and national assessment officials. The dissemination should take advantage of local and international resources by, for instance, combining data releases with other relevant research, explaining results in teacher newsletters and seminars, and inviting international staff or colleagues from other participating countries to give talks/workshops. Reporting should be detailed and provide more direction on reforms and innovations that are effective. It should also, however, address likely misinterpretations and inferences.

**Group 5 Chair:** Fou-Lai Lin (Chinese Taipei), *Rapporteur:* Kerstin Mattsson (Sweden)  
*Participants:* Tamar Bokuchava (Georgia), Sándor Brassói (Hungary), Tongthong Chandransu (Thailand), Rita Dukynaitė (Lithuania), Sarah Miller (Scotland).

Dr Mattsson reported on group members' experiences of the dissemination process, identifying several factors that play a role in its 'success,' such as economic and political climate, national self-image and rank, and the activities of the ministry of education. In some countries, acute social or economic problems trumped the reporting of assessment results in the media. Also, international study rankings garnered less interest if participating countries were considered too dissimilar for comparison. In some cases, the results had 'shock value' in the media because they contradicted existing expectations of the education systems. The ministers of education and their capacity to spearhead reform (based on length of term, experience, and leadership qualities) were considered crucial. All group members observed the influence of IEA's international studies in areas such as curriculum development, teacher education, and support for low-performing schools, but these influences could not always be traced to specific study results.

Dr Hegarty thanked all discussion group participants.

### ***Announcement of 2010 General Assembly***

Dr Wagemaker announced that the 51<sup>st</sup> IEA General Assembly meeting, originally planned for Egypt, will be hosted by Botswana on 4–7 October 2010. He invited Dr Serara Moahi (Botswana) to speak about next year's meeting.

Dr Moahi welcomed everyone to Botswana, describing it as a beautiful, humble country, with "more dust than concrete," friendly people, a stable political climate, and 32°C weather. She spoke briefly about the geography of the area, pointing out several scenic places to visit in and around Botswana, including the Okavango Delta, the Chobi National Park, and Victoria Falls. She fondly recalled the TIMSS 2007 8<sup>th</sup> NRC meeting in Gaborone (June 2008), and said she looked forward to hosting next year's meeting of the General Assembly, which represents so many countries around the world.

### ***Closing Remarks***

Dr Hegarty expressed appreciation to Dr Anu Toots (Estonia) and Estonian colleagues for hosting the meeting, and to study coordinators, the IEA Secretariat, the DPC, and Dr Wagemaker for ensuring that IEA studies are conducted collaboratively, professionally, and at the highest academic standard.

Dr Toots thanked all participants and said that it was an honor for Tallinn University and the City of Tallinn to host the 50<sup>th</sup> IEA General Assembly meeting.

The meeting was adjourned at 12:30.