# IASE matters

**Editorial Address:** *Andrej Blejec, National Institute of Biology, Vecna pot 111 POB 141, SI-1000 Ljubljana, Slovenia. Tel: +386-1-423-33-88, Fax: +386-1-2412-980, E-mail: andrej.blejec@nib.si*
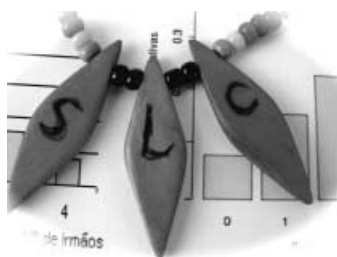*and*
*K. Laurence Weldon, Department of Statistics and Actuarial Science, Simon Fraser University, 8888 University Drive, Burnaby, BC, Canada V5A 1S6 Tel: +1-604-291-3667, Fax: +1-604-291-4368, E-mail: weldon@sfu.ca*

## INTERNATIONAL STATISTICAL LITERACY PROGRAM NEWS

*Reported by Juana Sanchez*

### Statistical Literacy Competition (SLC) in Schools in Brasil,  Sept–Dec 2007

As a continuation of the Statistical Literacy Competition in Northern Portugal in August 2007 (http://www.stat.auckland. ac.nz/~iase/islp/game), the International Statistical Literacy Program of IASE  will conduct a competition in schools in Brazil, in Portuguese, during the months of September to December 2007. The organization will be slightly different from the one in Portugal.  In Brazil, teachers will register teams of no more than 3 students no later than October 15th by regular mail or email. The teachers will then receive copies of the "Who Wants to be Statistically Literate?" games from the ISLP, and administer them themselves to the students. The answers from the teams will be emailed or mailed back to the ISLP and the best teams will be chosen. A second round of the competition to choose the winning team will be conducted in March or May in a place in Brazil

to be announced. All participants will receive some awards. The three top winning teams, their schools, and the teachers that registered them, will receive the top awards. This competition, like the one in Portugal, will be in Brazilian language.

More information on the competition can be found at http://www.stat.auckland.ac.nz/~iase/islp/game-brasil  or by emailing jsanchez@stat.ucla.edu

### International Statistical Literacy Competition in English, online, starting winter 2008

By December 2008, there will be a web page in the ISLP web site (http://www.stat.auckland.ac.nz/~iase/islp/home) where English speaking school teachers can register their school students for an annual International Statistical Literacy Competition during the winter 2008. After registering their students, a first round of the game will consist of sending by e-mail, at a specified date, three questions to the teachers. Students will then have 90 minutes to respond to these questions. After the 90 minutes, the teacher will email back to the ISLP the answers of the students. Two or three months later, the ISLP will announce who the top students are. These top students will then compete for the final round at the next IASE meeting. Only school (pre-college) students are allowed to participate. Teachers, schools and students winning will receive the top awards, but every student participating will receive some award.

An advantage of this competition is that the English-speaking teachers can certainly translate the three

questions to their students in their own language. A disadvantage is that teachers who don't know English will not be able to enrol their students. In the near future, we are hoping that we will be able to have a version of this game in several languages.

You may notice a resemblance between this competition and the Eurologo competition (http://projects.eurologo2007.org/imaginecup/index.php?lang=en). In fact, the inspiration for the approach to conduct the international game came from that competition.

### IASE/ISLP/SERJ at the United States Conference on the Teaching of Statistics

The United States Conference on the Teaching of Statistics (USCOTS) had its first meeting in May 2007, in Columbus, Ohio. This conference brings together many teachers of Statistics. Although the teachers attending are mostly college teachers from the United States, there was this year high school teachers (also from the US). There were also 3 or 4 attendants from overseas. Shown below are some images of the table attended by IASE/SERJ/ISLP and also the poster of Prince Oyelola Adegboye, who came to Ohio all the way from the Abi-American University of Nigeria. His



Photo 1: Prince Oyelola Adegboye (Nigeria) and Alfred Akinsete (Marshall University, US).



Photo 2: IASE table at USCOTS
Poster assessed the prospects and problems in the teaching of statistics in schools in this country. He

examines the old and current mathematics curriculum, which does not have any statistics at the Secondary School level. Teacher training is considered a major problem. The problems he summarized resemble to a large extent those faced by many countries today, including the United States. The ISLP is initiating a comparative study of school curricula across the world, and information like Oyelola's is very important. It was very interesting to see that college students in his university must visit schools to teach statistics in order to graduate.

### THE JOINT ICMI/IASE STUDY UPDATES



### Instituto Tecnológico y de Estudios Superiores. Monterrey, Mexico, June 30 to July 4, 2008

*Reported by Carmen Batanero*

Preparations for the **Joint ICMI/IASE Study** Statistics Education in School Mathematics: Challenges for Teaching and Teacher Education are now well advanced. This Study is jointly organised by the **International Commission on Mathematical Instruction** (ICMI, http://www.mathunion.org/ICMI/) and the **International Association for Statistical Education** (IASE, http://www.stat.auckland.ac.nz/~iase/).

The **Joint Study Conference (IASE 2008 Round Table Conference and ICMI Study conference)** will take place at the Instituto Tecnológico y de Estudios Superiores. Monterrey, Mexico (http://www.mty.itesm.mx/), from June 30 to July 4, 2008.

Guidelines for preparing and submitting the papers, the Discussion Document that contains details of the Conference Topics, guidelines and other information is available in the Joint Study Website (http://www.ugr.es/~icmi/iase_study/).

Proposed papers for contributions to the Joint Study Conference should be submitted by e-mail no later than October 1, 2007, to the IPC Study Chair (Carmen Batanero, batanero@ugr.es).

Following the conference there will be a short meeting of Latin-American statistics educators (ELEE, ITESM, Monterrey, Mexico, July, 4–5. 2008). The aim of this meeting is to gather together Latin-American statistics educators and teachers taking part in either the Joint ICMI/IASE Study: or ICME-11 (International Congress on Mathematical Education) with the purpose of exchanging experiences, expanding their statistics education knowledge, widening their network of contacts and establishing projects for future collaboration. People interested in making a presentation should send a

one page abstract to Cileda Coutinho, cileda@pucsp.br, before April 1, 2008. More information is available in the Joint Study Website (http://www.ugr.es/~icmi/iase_study/).

**ICOTS 8**

**Data and Context in Statistics Education:
Towards an Evidence-Based Society**

**Ljubljana, Slovenia, 11–16 July 2010**

*Reported by John Harraway*

The realization that data is preferable to anecdote or intuition as a basis for robust decision-making is spreading through many professions and sections of society. More and more, people want to see "the evidence". Statistical methodology and modelling are increasingly pervading the research fabrics of all fields that advance by employing empirical enquiry. And since the root purpose of statistics is to extract insight and meaning about real contexts using data, statistics educators are increasingly realizing that this cannot be modelled by teachers without the use of rich, real contexts. It is important that data and contexts pervade statistical learning and teaching, to help students understand the nature and value of the statistical sciences, and to facilitate their learning. Successful learning processes involve data and contexts that are meaningful to students. These can be relevant to everyday life or to disciplines as varied as psychology, biology, business, sociology, engineering, the health sciences and statistics itself. But many questions remain about the myriad ways in which we can exploit context to achieve our educational goals. We also must look hard at how well we use the data and contexts that should be guiding our own educational practices.

**EVIDENCE-BASED PRACTICE IN OTHER DISCIPLINES:
SOME EXAMPLES** Statisticians are often essential contributors in research teams in many disciplines and examples drawn from these contexts can enrich and facilitate the teaching of statistics. Interaction between statistics educators, statisticians and researchers in a relevant specialization can contribute significantly to the rich, real contextual and data resources that are of such value in both motivating and assisting statistical learning. Trends in medicine and other health sciences are governed by data, and evidence-based medicine is taught now in all medical schools. Data from the biological sciences provide information for resolving problems on environmental and ecological issues. The six-sigma revolution uses statistical quality control methods to monitor and improve industrial and engineering processes resulting in evidence-based decision making in industry. National statistics offices and international agencies contribute to evidence-based decision making in government and on public policy by collecting, collating, analysing and presenting data to populations at large and to governments in particular.

**EVIDENCE-BASED PRACTICE IN STATISTICS EDUCATION**
Evidence-based practice should also be employed in statistics education itself. How do we use context when teaching about variability, probability, inference and modelling? How do we interpret data from surveys, questionnaires or interviews and how are these related to the research hypotheses? To what extent are conclusions valid and reliable? Are we dealing with and explaining risk appropriately? Only with the answers to these intriguing questions will we be able to make informed decisions as we strive to reach an evidence-based society. Education ideas are shared on the web, through international and national projects, programmes, workshops and conferences in statistics education where diverse innovations are shared. The impact and relevance of new ideas are assessed and often adopted by others in their own teaching. Reports on the successes of recent statistics education programmes in South Africa and Latin America reflect the impact of the two ICOTS conferences and provide helpful

International Programme Committee Formulated the Topics and appointed Topic Convenors for ICOTS8.

**INTERNATIONAL PROGRAMME COMMITTEE
EXECUTIVE**

- John Harraway (New Zealand)
  IPC Chair jharraway@maths.otago.ac.nz
- Roxy Peck (USA)
  Programme Chair rpeck@calpoly.edu
- Helen MacGillivray (Australia)
  Scientific Secretary h.macgillivray@qut.edu.au
- Alan McLean (Australia)
  Editor of Proceedings
  alan.mclean@buseco.monash.edu.au
- John Shanks (New Zealand)
  Information Manager jshanks@maths.otago.ac.nz
- Andrej Blejec (Slovenia)
  Local representative on IPC andrej.blejec@nib.si

**LOCAL ORGANISING COMMITTEE**

- Andrej Blejec
  Chair andrej.blejec@nib.si

**TOPICS AND TOPIC CONVENORS**

**TOPIC 1. DATA AND CONTEXT IN STATISTICS EDUCATION:
TOWARDS AND EVIDENCE-BASED SOCIETY**

- Brian Phillips (Australia)
  bphillips@swin.edu.au
- Irena Ograjensek (Slovenia)
  irena.ograjensek@ef.uni-lj.si

**TOPIC 2.  STATISTICS EDUCATION AT THE SCHOOL LEVEL**

- Mike Shaughnessy (USA)
  mikesh@pdx.edu
- Doreen Connor (UK)
  doreen.connor@ntu.ac.uk

**TOPIC 3.  LEARNING TO TEACH STATISTICS**

- Katie Makar (Australia)
  k.makar@uq.edu
- Joachim Engel (Germany)
  engel@math.uni-hannover.de

**TOPIC 4.  STATISTICS EDUCATION AT THE POST SECONDARY LEVEL**

- Elisabeth Svensson (Sweden)
  elisabeth.svensson@esi.oru.se
- Larry Weldon (Canada)
  weldon@sfu.ca

**TOPIC 5.  ASSESSMENT**

- Beth Chance (USA)
  bchance@calpoly.edu
- Iddo Gal (Israel)
  iddo@research.haifa.ac.il

**TOPIC 6.  STATISTICS EDUCATION, TRAINING AND THE WORKPLACE**

- Gabriella Belli (USA)
  gbelli@vt.edu
- Peter Petocz (Australia)
  peter.petocz@mq.edu.au

**TOPIC 7.  STATISTICS EDUCATION AND THE WIDER SOCIETY**

- Richard Gadsden (UK)
  R.J.Gadsden@lboro.ac.uk

**TOPIC 8.  RESEARCH IN STATISTICS EDUCATION**

- Arthur Bakker (The Netherlands)
  a.bakker@fi.uu.nl
- Tim Burgess (New Zealand)
  t.a.burgess@massey.ac.nz

**TOPIC 9.  TECHNOLOGY IN STATISTICS EDUCATION**

- Deborah Nolan (USA)
  nolan@stat.berleley.edu
- Paul Darius (Belgium)
  paul.darius@biw.kuleuven.be

**TOPIC 10.  AN INTERNATIONAL PERSPECTIVE ON STATISTICS EDUCATION**

- Delia North (South Africa)
  northd@ukzn.ac.za
- Enriqueta Reston (Phillipines)
  edreston@yahoo.com

**TOPIC 11.  CONTRIBUTED PAPERS**

- Gilberte Schuyten (Belgium)
  Gilberte.Schuyten@UGent.be
- James Nicholson (UK)
  j.r.nicholson@durham.ac.uk

**TOPIC 12.  POSTERS**

- Mojca Bavadaz (Slovenia)
  mojca.bavdaz@ef.uni-lj.si

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