



Autumn 2003

Editorial Address: *Gilberte Schuyten, Department of Data Analysis, Faculty of Psychology and Educational Sciences, University of Ghent, B-9000 Gent, Belgium, Fax 32-9-2646487, E-mail gilberte.schuyten@rug.ac.be*



IASE ROUNDTABLE 2004

General Call for Papers

http://hobbes.lite.msu.edu/~IASE_2004_Roundtable

The International Association for Statistical Education (IASE) and the International Statistical Institute (ISI) are organizing the 2004 Roundtable on *Curricular Development in Statistics Education*, which will be held at Lund Institute of Technology at Lund University in Lund, Sweden from 28 June to 3 July 2004. The Roundtable will bring together a small number of experts, representing as many different countries as possible, to discuss one another's views and approaches to curriculum for teaching statistics. The Roundtable Conference will provide opportunities for developing better mutual understanding of common problems and for making recommendations concerning the statistics curriculum. A main outcome of the Roundtable will be a monograph containing a set of papers, which have been prepared for and discussed during the conference. The monograph will present a global overview of the conference that can serve as starting point for further research on issues related to the statistics curriculum.

The need for processing the increasing amount of data people receive in the course of their work and lives has made it imperative that students leave elementary and secondary schools prepared to make reasoned decisions based on sound statistical thinking. Countries and communities have approached this problem in different ways. The Roundtable will provide the opportunity for sharing what works and to highlight the challenges and potential solutions researchers have faced as they design and implement curricula to produce statistically literate citizens. The Roundtable will be held immediately prior to the Tenth International Congress on Mathematical Education to be held in Copenhagen, Denmark in 2004, July 4-11.

The IASE Scientific Program Committee will prepare the program and schedule for the Roundtable. The Committee has agreed on a list of topics that will form the basis of the discussions and invites those interested to send in a three-page summary of their proposed paper. The major topics to be addressed at the primary, secondary, tertiary, or inservice levels are:

- Relationship between curriculum and assessment
- Role of research in shaping curriculum
- Impact of technology on the statistic and probability curriculum
- Innovative curricular practices
- Teacher preparation
- Statistical literacy

International Association for Statistical Education

A section of the International Statistical Institute, 428 Prinses Beatrixlaan, PO Box 950, 2270 AZ Voorburg, The Netherlands [Tel: +31 70-3375737, Fax: +31 70-3860025, E-mail: isi@cbs.nl]

IASE web page: <http://www.cbs.nl/isi/iase.html>

Theoretical papers should include: a) the statement of the problem, b) background or appropriate previous work, c) discussion of main arguments, d) implications for curricular development, e) references.

Descriptions of experimental research should include:

- a) the statement of the problem and methodology,
- b) background or appropriate previous work;
- c) data analysis and discussion of main results;
- d) implications for curricular development;
- e) references.

Descriptions of curriculum innovations should include

- a) focus and philosophy of the curriculum
- b) background and development process
- c) description, d) pilot and implementation results
- e) sources and references.

Papers may be submitted for the primary, secondary, tertiary, or inservice levels within each of the topics according to the following process. Authors must submit a three-page summary of a proposed paper for review by the Program Committee. Authors of summaries that are in line with the goals of the overall Roundtable program will be asked to submit full papers. The final selection of papers to be presented at the Roundtable will be made on the basis of their contribution to curricular development in statistics, with attention given to balance across topics and across diverse communities from around the world.

Important deadline: October 1, 2003 for submission of summaries of papers to the Chair of the Scientific Program Committee, Gail Burrill at burrill@msu.edu

IASE ELECTIONS

The results of the IASE Elections are as follows:

President-elect: Gilberte Schuyten (Belgium)

Vice-presidents: Carol Joyce Blumberg (USA), Lisbeth Cordani (Brazil) Susan Starkings (UK), Christine Reading (Australia), Larry Weldon (Canada)

We welcome the new members of the IASE Exec, thank all those who have previously been on the IASE Exec and we are also very grateful to all who stood for the elections.

IASE ACTIVITIES

IASE Activities at the 55th Session of the ISI, Sydney, Australia, April 5-12, 2005

Chair, Chris Wild, c.wild@auckland.ac.nz

A strong suite of proposals for statistics education sessions have been assembled for ISI 55 by the IASE Programme Committee. The decisions about which sessions actually make it onto the ISI programme will be made by the ISI Programme Coordinating Committee at ISI 54 in Berlin in August and will be

announced soon after.

In addition, IASE is planning to run a two-day satellite conference adjoining the ISI 55 dates at a venue in New Zealand or Australia. The topic is likely to be "Statistics Education and the Communication of Statistics". People interested in playing a leadership role in such a conference should contact Chris Wild at c.wild@auckland.ac.nz

ICOTS-7 Working cooperatively in statistics education, Brazil, August 2006

Chair: Carmen Batanero, batanero@ugr.es

Topic and Topic Convenors are:

1. Working cooperatively in statistics education: Lisbeth Cordani (Brazil) lisbethk@terra.com.br and Mike Shaughnessy (USA) mike@math.pdx.edu
2. Statistics Education at the School Level: Dani Ben-Zvi (Israel) dbenzvi@univ.haifa.ac.il and Lionel Pereira (Singapore) lpereira@nie.edu.sg
3. Statistics Education at the Post Secondary Level: Martha Aliaga (USA) aliaga@umich.edu and Elisabeth Svensson (Sweden) elisabeth.svensson@esi.oru.se
4. Statistics Education/Training and the Workplace: Pedro Silva (Brazil) pedrosilva@ibge.gov.br and Pilar Martín (Spain) pilar.guzman@uam.es
5. Statistics Education and the Wider Society: Brian Phillips (Australia) BPhillips@groupwise.swin.edu.au and Philip Boland (Ireland) Philip.J.Boland@ucd.ie
6. Research in Statistics Education: Chris Reading (Australia) creading@metz.une.edu.au and Maxine Pfannkuch (New Zealand) pfannkuc@scitec.auckland.ac.nz
7. Technology in Statistics Education: Andrej Blejec (Slovenia) andrej.blejec@uni-lj.si and Cliff Konold (USA) konold@srri.umass.edu
8. Other Determinants and Developments in Statistics Education. Theodore Chadjipadelis (Greece) chadjj@polsci.auth.gr and Beverley Carlson (USA) bcarlson@eclac.cl
9. An International Perspective on Statistics Education: Delia North (South Africa) delian@icon.co.za and Ana Silvia Haedo (Argentina) haedo@qb.fcen.uba.ar
10. Contributed Papers: Joachim Engel (Germany) Engel_Joachim@ph-ludwigsburg.de and Allan Mc Lean (Australia) alan.mclean@buseco.monash.edu.au
11. Posters: Celi Espasandín López (Brazil) celilopes@directnet.com.br

To see what was held at our previous conference, ICOTS 6, please visit the following website <http://icots6.haifa.ac.il/icots6.html>

IASE PUBLICATIONS

IASE Statistics Education Research Journal (SERJ)

The IASE Statistics Education Research Journal, Volume 2, Number 1 is now available at SERJ web page: <http://fehps.une.edu.au/serj>

Since the previous issue we have been working in various ways to improve SERJ and to expand its impact on statistics education research. SERJ is now extracted in the Mathdi Database and the Current Index to Statistics. A link to the SERJ web page is now included in the Journal of Statistics Education and 45 other web pages professional organizations or institutions.

In this issue we have four refereed papers (for the first time we are including a paper in Spanish) complemented by our usual sections. Here we should like to draw your attention to summaries of papers presented at CERME 3 (Congress of European Research in Mathematics Education), where, for the first time a stochastic group was organized.

The IASE are pleased to announce that Iddo Gal has been appointed as the next editor.

In the first issue of SERJ volume 2, the refereed papers were:

- Iddo Gal -. Expanding Conceptions of Statistical Literacy: An Analysis of Products from Statistics Agencies
- Joan B. Garfield - Assessing Statistical Reasoning
- Peter Petocz and Anna Reid - Relationships between Students Experience of Learning Statistics and Teaching Statistics
- Antonio Estepa and Francisco Tomas Sánchez-Cobo - Evaluación de la Comprensión de la Correlación y Regresión a partir de la Resolución de Problemas

IASE SUPPORTED ACTIVITIES

SRTL-3 International Research Forum: Reasoning about Variability, July 23–28, 2003, The University of Nebraska-Lincoln, USA

This Forum offers an opportunity for a small, interdisciplinary group of researchers from around the world to meet for a few days to share their work, discuss important issues, and initiate collaborative projects. Having emerged from the two previous forums, the topic and focus of SRTL-3 is *Reasoning about Variability*. One outcome of the Forum will be the publication of a proceedings book summarizing the work presented, discussions conducted, and issues emerging from this gathering.

For more information, visit the SRTL-3 website at <http://tc.unl.edu/srtl>

IASE Sponsored Session on “Using the History of Statistics to Improve the Teaching of Statistics” during Joint Statistical Meetings

The IASE will sponsor for the first time an Invited Paper Session during the Joint Statistical Meetings in San Francisco, California from 3 to 7 August 2003.

The Invited Session will be co-sponsored by the ISI, the ASA Section on Statistical Education, and the ASA Section on Teaching of Statistics in the Health Sciences.

The session will be held on Thursday, 7 August from 10:30 to 12:20 in Continental Ballroom 6 of the Hilton. The speakers will be Herbert A. David on “The History of Statistics in the Classroom”, David R. Bellhouse on “Probability and Statistics Ideas in the Classroom – Lessons from History” and Fred L. Bookstein on “Learning from the Coercive Power of Numerical Evidence: Three Classical Examples”. The discussants are Jay L. Devore and Jeffrey A. Witmer. For further information contact the session organiser Carol Blumberg at cblumberg@winona.edu

FORTHCOMING CONFERENCES

Australian Mathematical Sciences Institute Symposium on Statistical Learning, October 2-3, 2003, Sydney, Australia

The symposium is being organised by Inge Koch and **Matt Wand** of the **Department of Statistics at University of New South Wales**. The theme ‘Statistical Learning’ is one of the most vibrant current areas of statistical research. In Statistics parlance, its main themes are prediction and classification (“supervised learning”) and clustering (“unsupervised learning”). Many of these themes are present in areas outside of mainstream statistics: pattern recognition, artificial intelligence, machine learning, neural networks, data mining and bio-informatics. This symposium will primarily focus on statistical issues, although some cross-disciplinary research will be presented.

More information is available at

<http://www.maths.unsw.edu.au/~wand/websymp/schedule.html>

The 10th International Congress on Mathematics Education, July 4-11, 2004, Copenhagen

Chair: Mogens Niss icme10-IPC@ruc.dk

The venue will be the Technical University of Denmark, located in a northern suburb of Copenhagen. The IASE will be collaborating in the organisation of specific statistics education activities in the conference.

Conference web page: <http://www.icme-10.dk/>

History and Pedagogy of Mathematics 2004 Satellite Conference of ICME-10, July 12-17, 2004, Uppsala, Sweden

Chair: Fulvia Furinghetti, furinghe@dim.unige.it

The HPM satellite conferences take place every 4 years since 1984. It is a unique occasion to attend lectures, workshops, research reports from all over the world about the use of history in mathematics education and history of mathematics. The participants to the HPM meetings are researchers in history, in mathematics education, and teachers who have experimented the use of history in their teaching.

For more information visit the website at:

<http://www.mathedu-jp.org/hpm/index.htm>

NEWS FROM AROUND THE WORLD

Tinkerplots, Cliff Konold, Scientific Reasoning Research Institute, University of Massachusetts, Amherst

<http://www.umass.edu/srri/serg/index.html>

Tinkerplots is an educational data analysis software tool that is developed with funding from the National Science Foundation and in collaboration with four middle school mathematics curricula. Tinkerplots, comes with no ready-made graphs. Students make plots by progressively organizing data using basic operators such as 'separate', 'stack' and 'order'. By using these basic operators in different combination, students can make a large variety of plots and can smoothly transform one to another. In this way they can begin exploring data without knowing the difference between various data types (nominal, ordinal, ratio), without an explicit understanding of the difference between characteristics (tall) vs. variables (height), and without knowledge of the conventions of 2-D representations. The hope is that through using Tinkerplots in the spirit of Exploratory Data Analysis, they will systematically build their understandings of various displays and the statistical ideas they embody. You can view a Quick Time demonstration of Tinkerplots posted at

<http://www.umass.edu/srri/serg/index.html>

NCTM Publications 'Navigating through Data Analysis and Probability in Prekindergarten-Grade 2' and 'Navigating through Data Analysis and Probability in Grades 3-5 (with CD-ROM)'

Both books focus on the process of collecting, organizing, and displaying data to investigate questions. These books present an assortment of probability discussions, activities, and investigations emphasizing the collection of data. Each activity includes an assessment section suggesting such

things as strategies for evaluation and modifications for those having difficulty or needing enrichment. The accompanying CD contains applets for students to manipulate and resources for professional development.

Visit the website at <http://nctm.org/catalog>

Beyond the Formula statistics Conference, Monroe Community College, Rochester, New York

These annual statistics conferences are designed to aid teachers to become more effective instructors of introductory statistics. The goal is to engage as many teachers of introductory statistics as possible in some challenging discussion of statistical curriculum, pedagogy and application, while confronting the newest aspects of teaching with technology.

Four basic issues surrounding the teaching of statistics have been identified: (1) the **application** of the subject matter to real world situations, (2) the effect modern **technology** is having on the teaching, learning and application of statistics, (3) the **teaching techniques** and methodologies used to deliver an understandable and interesting course to today's student, (4) the statistics **curriculum**.

The primary focus will change each year to keep each year's program independent and non-redundant of previous programs.

The theme of this year (July 24-25) was 'Constantly Improving Introductory Statistics: The Role of Technology'. For more information please visit:

<http://www.monroecc.edu/go/beyondtheformula>

UPDATE ON THE INTERNATIONAL STATISTICAL LITERACY PROJECT (ISLP) OF THE IASE

The ISLP website containing lists of resources relating to statistical literacy is now fully operational at <http://course1.winona.edu/cblumberg/isplist.htm>

An Open Meeting of the ISLP Advisory Committee will be held during the ISI Session in Berlin on 14 August from 7:30 to 9:00 in Rooms 11/12 of the International Conference Centre. Please contact Carol Blumberg at cblumberg@winona.edu for more information.