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<http://www.stat.auckland.ac.nz/~iase/>

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Working Cooperatively in Statistics Education

Salvador (Bahia), Brazil, July 2-7, 2006
<http://www.maths.otago.ac.nz/icots7>

CALL FOR CONTRIBUTED PAPERS AND POSTERS

The International Association for Statistical Education (IASE) and the International Statistical Institute (ISI) are organizing the Seventh International Conference on Teaching Statistics (ICOTS-7) which will be hosted by the Brazilian Statistical Association (ABE) in Salvador (Bahia), Brazil, July 2-7, 2006. Most of the 54 Invited Paper Sessions (arranged into 9 different Topics) are complete. In addition 4 Special Interest Group Meetings (3 of them in both Portuguese and Spanish) have been arranged for those interested in discussing a particular theme. Contributed papers and posters dealing with any aspect of statistics education are welcome. Contributed paper will be arranged in a variety of Sessions, taking into account the proposals received. An optional refereeing process will be arranged for those wishing their papers to be refereed. Those interested in submitting a **contributed paper** should contact either Joachim Engel (Engel_Joachim@ph-ludwigsburg.de) or Alan McLean (alan.mclean@buseco.monash.edu.au) **before**

SEPTEMBER 1, 2005

Those interested in submitting a **poster** should contact Celi Lopes (celilopes@uol.com.br) **before**

FEBRUARY, 1, 2006

Detailed guidelines for authors, deadlines and other information are available at the ICOTS web site at <http://www.maths.otago.ac.nz/icots7>

More information can be obtained from **Carmen Batanero**, batanero@ugr.es

EDUCATION IS EVERYBODY'S RESPONSIBILITY

International Association for Statistical Education

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On August 30th and 31st, 2004, the ISI co-sponsored a Special Conference in Daejeon, Korea, on "The Vital Role of Statistical Science in Assuring National Prosperity". The Conference was co-organized by the Korean Statistical Society and the Korea National Statistical

Office and was timed to follow a meeting of the ISI Council. There were thirty-one invited participants, many of them members of the ISI Council. The following is an abbreviated version of an opening statement for a panel discussion on statistics education at the Conference.

Statistics education should be a vital concern of anyone who cares about the future of statistics or statisticians, or who employs statisticians. Who should be educated and for what purposes? There is statistics education for those who will become professional statisticians, for those in other areas or professions who will use statistics fairly seriously, and statistics education to provide general life skills and enable an educated citizenry to participate in societal debates which involve arguments based upon data. Every section of ISI has vital interests in at least one of these areas.

Statistics education provides a training ground, a recruiting ground and a selling ground. It is to the advantage of us all if more of the best and brightest come into statistics education systems and leave them better educated, with better developed thinking skills, and a greater appreciation for the power of statistics. Better and better-educated people have a greater impact, both practical and intellectual, and increase the demand the perceived sources of their success. But statistics is not just for an elite. Society at large will benefit if a broad cross section of students emerge statistically literate and with an appreciation for the power of statistics and the desirability of decisions being made on the basis of solid data.

There is a place in this for everyone. There is a place for employers in making known the skills that they desire in recruits. There is a place for statistical professionals in making known what statistical and related skills are most marketable or otherwise valuable. This is the goal-setting and goal-prioritising aspect of statistics education, an aspect which should be driven by answers to the critically important question, "Of all that statistics education might potentially deliver, what matters most in the real

world?" And, most obviously, there is a place for teachers.

Educational goals must be realistic. They are only useful in the here and now if real students can reach them in realistic timeframes with proven pedagogy. Where goals are desirable but not yet realistic, they should fuel experimentation and research in search of pedagogies that might make them realistic. We must respect each other's professional expertise. Statistical practice is the area of expertise of the statistical professional. Pedagogy is the area of expertise of the teacher. Statistical professionals must tread carefully in the minefield of pedagogy. Lacking a detailed knowledge of the capabilities of students at various ages and stages of development and educational background, they may not even realise that they have strayed into a minefield. But it is imperative that statistical professionals be welcomed into pedagogical debates as potential sources of new mould-breaking ideas from minds that have not been conditioned to walk down established pathways and consequently, perhaps, blinded to other possibilities. The resulting ideas, however, then need to be tested in the fire of real students in real classrooms with real teachers before being widely advocated, or worse still, enshrined untested in educational policy. There are significant numbers of people doing important research to inform goals and pedagogy for statistics education, many if not most of them IASE members, but many more are needed if much teaching practice is truly to be well informed by solid research.

Statistics is both valued and undervalued. It is valued to the extent that it is a central and even compulsory part of curricula with huge numbers of students studying statistics at some level and in some form in large numbers of countries. It is undervalued in that its full potential is not encapsulated in the teaching that is being done and in that it is mostly taught by teachers who themselves have, at best, minimal education or experience in the subject. There may be a silver lining to this cloud. Overworked, under-resourced teachers may be desperate for materials that can increase relevance and interest for their students while saving the teachers work. If, for example, statistical agencies who want to create an appreciation for their work can deliver materials in the form of complete off-the-shelf lessons that are well integrated with official curricula and assessments, there should be a good chance of their being widely adopted. Most students who end up coming into statistics thought they were heading somewhere else so we are usually in the business of selling students something they do not know they want. To do this teaching has to be speaking to things students really care about. Teachers need ammunition.

The capabilities of a voluntary organisation are defined by what the membership is willing and able to donate time and effort to. That in turn is driven by what members feel is interesting and important. Personal perception, and a scanning of the institutions that members work in for countries that I know well, suggests that most members of IASE are primarily teachers. Others are teacher-researchers. Some are official statisticians. We should have a better handle on the profile of the membership and must move to correct this. What can IASE and the rest of ISI do to expand the educational capability we now have? Currently, the ways that we address the educational needs of other sections come about largely through the actions of small numbers of people who are active in both areas and often dual members. We co-sponsor sessions of mutual interest at the main ISI conferences and put on specialised sessions at ICOTS and publish papers. Are there other approaches that might allow us to make progress on educational imperatives of other Sections or even just make progress on determining what they might be? This meeting provides us with an excellent opportunity to explore possibilities. IASE is open to any ideas. And ideas, we realise, are just a start. They need champions who can take ownership of them and enthuse others into making them happen.

REPORT ON IASE ACTIVITIES

International Statistical Literacy Project (ISLP)

Report by Carol Joyce Blumberg

Over the past 12 months there have been many new items added to the pages of the International Statistical Literacy Project. In addition, new webpages have been added on Assessment and on Recently Published Articles/Reports Useful for Teaching Statistics. A search engine has also been added. The best URL to use to start exploring the ISLP webpages is <http://course1.winona.edu/cblumberg/islplist.htm>.

There are two very important needs for the ISLP webpages at the moment. First, in order to make the webpage on Recently Published Articles/Reports Useful for Teaching Statistics have publications from around the world, there is a need for people to send articles/reports that they see in their own country (both good and bad examples of uses of statistics) to Eunice Goldberg at egoldberg@nl.edu.

Second, a co-ordinator for webpages dealing with Resources for Primary School Teachers is needed. To volunteer to help co-ordinate the Resources for Primary School Teachers pages or to volunteer to help co-ordinate any of the other ISLP webpages, please contact Carol Joyce Blumberg, ISLP Coordinator, Department of Mathematics & Statistics, Winona State University, Winona MN 55987-5838; email: cblumberg@winona.edu; Fax: ++1-507-457-5376.

Further, if you have other resources that you would like to see included on existing webpages, please send them to the appropriate page co-ordinators (see <http://course1.winona.edu/cblumberg/islpcord.htm> for emails). If you have ideas for additional webpages or other projects that you would like to have the ISLP Advisory Committee consider, please contact Carol Joyce Blumberg.

IASE Publications Website

Report by Carol Joyce Blumberg and Chris Wild

In the last year, the IASE publications available directly from the IASE website at

<http://www.stat.auckland.ac.nz/~iase/publications.php> have been greatly expanded. It now contains: All issues of the Statistics Education Research Journal since its inception (as well as all issues of its predecessors—Statistics Education Research Newsletter and Newsletter of the International Study Group for Research on Learning Probability and Statistics since 1987); All past issues of IASE Review; Proceedings from ICOTS (International Conference on Teaching Statistics) 5 (in 1998) and 6 (in 2002); All papers (both invited and contributed) related to statistics education from the last three ISI Biennial Sessions in Helsinki, Seoul, and Berlin that appeared in the Proceedings volumes; Proceedings from the IASE Satellite Conferences on “Statistics and the Internet” (in 2003) and “Statistical Literacy” (in 2001); and Proceedings from the IASE Round Tables on Training of Researchers in the Use of Statistics (in 2000) and Research on the Role of Technology in Teaching and Learning Statistics (in 1996).

The following have also recently been added: Copies of all issues of IASE Matters since its inception in 1992; Copies of almost all issues of the IASE Component in the ISI Newsletter since 1981 (when IASE was still the ISI Education Committee); and Papers and PowerPoint presentations from the IASE-sponsored sessions at the Joint Statistical Meetings on “Using the History of Statistics to Enhance the Teaching of Statistics” (in 2003) and “Training of Government Statisticians” (in 2004).

The page also contains some non-IASE publications including an extensive collection of Dissertations since 2000 in the area of statistics education (with some being available as Full Versions and some as abstracts only) and copies of papers related to statistics education from the International Congress on Mathematical Education 9 (in 2000) and 10 (in 2004). There is also a link to a regional publication in Spanish called Hipótesis Alternativa (which draws heavily on material from IASE publications).

When available the following will be added to the website: Proceedings from the 2004 IASE Round Table on “Curricular Development in Statistics

Education"; Proceedings of the 2005 IASE Satellite Conference on "Statistics Education and the Communication of Statistics"; Papers related to statistics education from the 2005 ISI Biennial Session in Sydney, Australia; and Papers related to statistics education from the International Congress on Mathematical Education in 1996.

IASE Sponsored Sessions at the Joint Statistical Meetings in 2004 and 2005

*Report by Carol Joyce Blumberg,
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In August 2004, IASE was the main sponsor (with ISI and the American Statistical Association (ASA) Section on Statistical Education as co-sponsors) of an Invited Session on "Training of Government Statisticians". Formal papers (using PowerPoint presentations) were given by Patrick Murphy of University College Dublin (Ireland) on "Teaching a Course on Government Statistics in a University Statistics Department", by Cynthia Z. F. Clark, US Census Bureau, Gia F. Donnalley, US Census Bureau and Roger Tourangeau, University of Maryland (USA) on "The Joint Program in Survey Methodology and Its Impact on the Federal Statistical Agency Workforce" and by Elizabeth Taylor of the Bureau of Labor Statistics (USA) on "The Challenges of Providing International Statistical Training to Government Statisticians". The Discussants were Ivan P. Fellegi, Chief Statistician at Statistics Canada, and Luigi Biggeri, President of the Italian National Statistics Office. The organiser/chair of the Session was Carol Joyce Blumberg (USA). Copies of the papers and PowerPoint presentations are available at the IASE Publications page at <http://www.stat.auckland.ac.nz/~iase/publications.php>. IASE will also have an Invited Session on "Publishing in Statistics Education Journals: Views from the Editors" accepted at the 2005 Joint Statistical Meetings. This session will have the Editors (or their representatives) of Statistics Education Research Journal, Journal of Statistics Education and Teaching Statistics prepare and present papers on the mission of their journal, the types of articles they would like to receive, and some of the common errors they find in submitted manuscripts that result in rejection. Gilberte Schuyten (IASE President) will serve as Discussant. Following the presentations by the Editors and the Discussant, there will be 30 to 40 minutes of open discussion devoted to questions from the audience and discussion by the Editors and members of the audience of what the journals and the organizations that publish them can do in the future to fit the needs of the statistics education community. This session is also being organised by Carol Joyce Blumberg. The co-sponsors are ISI and the ASA Section on Statistical Education. Details on the 2005 Joint Statistical

Meetings to be held in Minneapolis, Minnesota, USA from 7 to 11 August are at <http://www.amstat.org/meetings/jsm/2005/index.cfm>. The papers presented in this session will be available on the IASE Publications page when they are completed in Fall of 2005.

SPECIAL ISSUE OF STATISTICS EDUCATION RESEARCH JOURNAL

*Report by Flavia Jolliffe and Iddo Gal, Co-editors
Statistics Education Research Journal*

The Editorial Board of the Statistics Education Research Journal (SERJ) is pleased to announce the publication of the November 2004 issue of the Statistics Education Research Journal (Vol. 3, No.2), which is a special issue on "Reasoning about Variability and Variation" with Dani Ben-Zvi and Joan Garfield as Guest Editors. This new issue, as well as archives of older issues, can be found on the SERJ web page at: <http://www.stat.auckland.ac.nz/serj>. The whole Issue can be downloaded as a single PDF (about 1MB) or individual papers can be retrieved separately.

Besides the special articles, this issue contains an Editorial announcing important change in the SERJ Statement of Goals and Policy and the addition of a Brief Reports manuscript format. The issue also contains sections with information about past and future IASE conferences and announcements of other future conferences with a statistical education research strand.

SERJ is a free electronic peer-reviewed research journal of the IASE and ISI. Instructions for contributors and additional information about the Journal's goals and policies can be found on the SERJ website: www.stat.auckland.ac.nz/serj