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

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WORKING COOPERATIVELY IN STATISTICAL LITERACY

Reported by *Juana Sanchez, Director of IASE's International Statistical Literacy Project*

ICOTS 7 had as a theme "Working Cooperatively in Statistical Education," but many session topics and talks were specialized in "Statistical Literacy." Quoting plenary speaker Len Cook of the International Statistical Institute of New Zealand, "Our task in statistical education is not one of developing statisticians alone, but of advancing the statistical literacy of the community..." (ICOTS 7 Proceedings, <http://www.stat.auckland.ac.nz/~iase/>). Sometimes that goal is reached faster working cooperatively. The IASE's International Literacy Project, ISLP, web page at <http://www.stat.auckland.ac.nz/~iase/islp/>, contains information on many cooperative efforts to increase statistical literacy throughout the world. If you browse the *News* link or the *List of Pages*, you will see that some of these efforts are more ambitious than others, but they all share the desire to help the community understand the statistical information that affects their lives.

We can observe in the ISLP pages several models of advancing statistical literacy: on the one hand, we have the Statistical Office model, where most of the statistical literacy aimed at the general community of a country is done via the national government statistical offices, and

where Statistical Societies play a very small role, if any, in promoting statistical literacy outside the realm of professional statisticians. On the other hand, there is the University Model, where numerous separate attempts, funded by a common government agency, such as the NSF or the American Statistical Association in the USA, finance cooperative efforts of Universities and private institutions to spread statistical literacy and promote statistical education. Universities play a major role in the advancement of Statistical literacy in this model, but that effort is not yet widespread enough over the community. Then there is the Mixed Model, where a combination of Statistical Societies, Government statistical offices, Universities and the private sector cooperate in efforts to promote statistical literacy among teachers and students. CensusAtSchool is an example of the latter (New Zealand, Australia, Canada, South Africa, England) with homogeneous materials and data collection methods to increase statistical literacy of children and their teachers. Another example is project ALEA in Portugal, a cooperative effort between the National Statistical Office of Portugal and a High School to increase statistical literacy among children and adults. All these, and many other efforts to reach the different faces of a community, are applauded for their perseverance and creativity. They take a huge amount of work and dedication. And they serve as models to imitate by others. In some cases, like the CensusAtSchool project, the seed is there for many other countries to jump in and join in the multinational enterprise. The countries involved in CensusAtSchool are having a meeting in Melbourne at the

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end of March to coordinate further this effort and to design ways to encourage other countries to jump in. But there are many other efforts that you can find in the ISLP's pages.

The ISLP web page keeps you informed on all this and much more. Our News link contains the latest. There is plenty of room for cooperation among countries, individuals and institutions, and the ISLP web page helps you or your institution decide what model to follow. Other hybrid models exist that you can adapt to your soil and your circumstances.

Then there is the ISLP itself. The role of the ISLP is to promote and inform on statistical literacy. The web page serves the information goal. But there is much more. ISLP is currently working cooperatively with the Instituto Nacional de Estatística of Portugal, project ALEA, schools in Northern Portugal, and the local organizers of ISI-56 in Lisbon, to conduct a game in Portuguese for school students called: "Who Wants to be Statistically Literate?". The game is similar to the game "Who Wants to be a Millionaire?" but with statistical questions related to Portugal, and will take place in communities in Northern Portugal in the days before the ISI-56 meeting in Lisbon, with the semifinal taking place in Guimaraes, and the final taking place in Lisbon. The front page of the ISLP web site contains more information and will keep you posted on the teams, students' names, teachers, training efforts, and anything related to the games. Once students register for the game, ISLP sends them material in Portuguese to help them train and win the game. The materials come from the project ALEA web page, but they also come from many of the links that the ISLP web site has, with all the materials translated to Portuguese. Students are training from March until August. The anticipation is already building up. Which school will win? Brazilian or other Portuguese-speaking students that are visiting Portugal during this period with their parents are also invited to participate.

This is an opportunity for all those interested in statistical literacy to work cooperatively. There are many ways you could contribute to the game in Portugal:

- a) If you know Portuguese, you could help in translation of materials that are being sent to students to prepare for the game.
- b) If you don't have time, you could make a small donation (\$10-\$50) to ISI (earmarked to ISLP/IASE) to help finance the transportation of students across villages in Northern Portugal, Guimaraes and Lisbon, and to help finance the awards.
- c) If you live in Northern Portugal, you could help administer the game in the schools in August.
- d) If you are related to a Publisher, a business, a school with promotional materials, or similar, you could donate prizes in kind for all students participating in the games.

- e) If you are an artist, help design nice posters to decorate the game locations and to create attractive flyers for the local newspapers.
- f) If none of the above suits you, but you will be in Portugal this summer, you are invited to come and see the final game in Lisbon and cheer the winners.
- g) Or just simply, send us your ideas and suggestions.

There are many ways, as you can see. The ISLP web site front page and News Link, as well as the other list of pages, will keep you informed from now until August. Visit the pages regularly. The front page is constantly changing and so is the News link.

With the experience gained in this game, ISLP is planning to conduct other statistical literacy activities in future sites of IASE meetings – Mexico is next, then South Africa, and perhaps others in countries that are not so well represented in the IASE/ISI community. Planning for activities in those areas is already under way, in cooperation with groups in those countries. Cooperation is the key. Nothing can happen without it.

Finally I would like to emphasize here one more form in which you can cooperate in the promotion of statistical literacy. The ISLP web site is a wiki page, at least in all the pages under the link "List of Pages" and the "News" page. Those pages are yours. They are open for you to enter and simply type information about statistical literacy efforts that you know of, in the language you speak natively. You don't have to know html or web language. Simply write a piece of news on statistical literacy, or the summary and link of a project you know in your language, in the editor of your choice, and just copy and paste it. The access to edit the ISLP page is free, you just register first. You will not be asked for your age, income or anything like that. You will just be asked for your email, so that the program can send you a password and login name. After that, you just have to select the edit button in the area of the page of your choice and the space opens up for you to copy and paste from your editor. Please, use your own language, to help us promote native materials to people that do not understand English. We don't know anything about many areas of the world, and that is perhaps because of the language problem. Help us bridge that problem by using your native language and by posting links to materials in your language. There are page coordinators that will regularly supervise the pages to make sure that the place you chose to put your materials is the best possible one.

For any questions or information, contact:
Juana Sanchez, Director of ISLP/IASE
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For electronic donations to ISI earmarked to ISLP/IASE, by credit card, go to the ISI Secure Electronic Payment Site:

<http://isi.voce.nl/ms/?get=shop>

In the window "Membership number" enter "ISLP Donation" if you are not an ISI member. In the section on "Donation", enter in the section "Donation to ISLP."

For donations by check, send a check (writing in it that it is a donation to ISLP/IASE) to:

International Statistical Institute
428 Prinses Beatrixlaan
P.O. Box 950
2270 AZ Voorburg
The Netherlands.

You may request a receipt indicating that your contribution has been made.

THE FIFTH INTERNATIONAL RESEARCH FORUM ON STATISTICAL REASONING, THINKING, AND LITERACY:

SRTL-5: Reasoning about Informal Inference

The University of Warwick, UK, August 11–17, 2007

Reported by Dani Ben-Zvi

The fifth in a series of International Research Forums on Statistical Reasoning, Thinking and Literacy (SRTL-5) is to be held in the UK from August 11 to August 17, 2007. The Centre for New Technologies Research in Education (CeNTRE), the University of Warwick, will host the Forum. In addition, the Forum is sponsored by The Royal Statistical Society (UK), The American Statistical Association (ASA) Section on Statistical Education, the Institute of Education, University of Warwick, and the School of Education, University of Leicester.

This gathering 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. The Forum's focus will be on *informal ideas of statistical inference* rather than on formal methods of estimation and tests of significance. This topic is emerging from the presentations and discussions at SRTL-3 and 4 and is a topic of current interest to many researchers as well as teachers of statistics. As new courses and curricula are developed, a greater role for informal types of statistical inference is anticipated, introduced early, revisited often, and developed through use of instructional activities, simulation and technological tools.

We shall be looking at the ways people intuitively make statistical inferences and how their reasoning develops or is revealed through instruction. For example, what is the nature of how people make inferences about a larger group based on single sample of data, how people make inferences about possible group differences based on two seemingly

different samples of data, or, how people judge a sample or sample statistic to be surprising given a particular claim about the population from which the sample was drawn or the model which produced the sample of data. None of this may involve formal statistical inference (P-values, tests of significance, confidence intervals, etc.). However, studies on the nature of this informal, inferential reasoning provide results that have implications for teaching and learning formal methods of statistical inference.

An interesting range of diverse research presentations and discussions have been planned and we all look forward to a stimulating and enriching gathering. These papers will address reasoning about informal inference at all levels of education including the professional development of elementary and secondary teachers. One outcome of the Forum will be publication of a CD proceedings as well as a special issue of SERJ on *Reasoning about Informal Reasoning*.

The structure of the scientific program will be a mixture of formal and informal sessions, small group and whole group discussions, and the opportunity for extensive analysis of video-taped research data. There will also be a poster session for exhibiting current research of participants on additional topics related to statistics education. The Forum is co-chaired by Dani Ben-Zvi (University of Haifa, Israel) and Joan Garfield (University of Minnesota, USA), co-organized by Janet Ainley (The University of Leicester, UK) and Dave Pratt (University of London, UK), and planned by a prestigious international advisory committee. For more information, visit the SRTL website at: <http://srtl.stat.auckland.ac.nz/>.

CALL FOR CONFERENCE PAPERS FOR THE JOINT ICMI/IASE STUDY



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

Reported by Carmen Batanero

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/>) are pleased to announce the **Joint ICMI /IASE Study Statistics Education in School Mathematics: Challenges for Teaching and Teacher Education**.

The **Joint Study Conference** will be merged with the **IASE 2008 Round Table Conference** and 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.

The Joint ICMI/IASE Study will be structured around six different topics:

- *Topic 1. The current situation of teaching statistics in schools.* Organisers: Dani Ben-Zvi (dbenzvi@univ.haifa.ac.il) and Chris Reading (creading@une.edu.au)
- *Topic 2. Teachers' attitudes, knowledge, conceptions and beliefs in relation to statistics education.* Organizers: Carmen Batanero (batanero@ugr.es) and Gail Burrill (burrill@msu.edu)
- *Topic 3. Analysing current practices in teacher education regarding the teaching of statistics.* Organisers: Doreen Connor (doreen.connor@ntu.ac.uk) and Lionel Pereira-Mendoza (lionel@iamendoza.com)
- *Topic 4. Empowering teachers to teach statistics: A look into the future.* Organisers: Joachim Engel (engel@ph-ludwigsburg.de) and Maxine Pfannkuch (pfannkuc@math.auckland.ac.nz)
- *Topic 5. Training teachers in developing countries.* Organisers: Jun Li (lijun@math.ecnu.edu.cn) and Victor Polaki (mv.polaki@nul.lis)
- *Topic 6. Building collaboration between mathematics and statistics educators in teacher education.* Organisers: Joan Garfield (jbg@umn.edu) and Maria Gabriella Ottaviani (mariagabriella.ottaviani@uniroma1.it)

Both theoretical reflections and analyses of existing successful examples of experiences in training teachers to teach statistics in any of the above Topics are welcome. Guidelines for preparing and submitting the papers as well as the Discussion Document that contains more details of the Conference theme and Topics are also 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).

OBITUARY

by Carmen Batanero

With a great sorrow I have to announce that *Pilar Iglesias*, an IASE member, died.

Pilar helped the association in many different ways. She attended several of our conferences, for example the ISI Session and IASE satellite in Korea. She also helped to foster statistics education in Chile, including statistics education activities in their national conferences (e.g. she invited me for a plenary lecture in the year 2000) and she ran several educational projects with Guido del Pino and other colleagues.

She was suffering from cancer in the last years (at least since 2000) but, in spite of this she continued with her activities. The last help we received from her was in ICOTS-7 where she organised the session 3I Teaching Bayesian Statistics and invited a good group of researchers, including Lisbeth and Jose Miguel Bernardo, one of the leaders in Bayesian statistics. As she finally could not attend ICOTS, due to her illness, I chaired the session, which was most successful. She also sent 2 posters to ICOTS that were presented by Guido del Pino.

Pilar was an extraordinary woman both from the scientific and human point of view. She was vital, optimistic, caring for other people, intelligent and sensible. She transmitted strength and happiness to all who had the privilege of meeting her. Her courage in coping with the illness also set an example for us.