

# ISLP Newsletter

1(3)

International Statistical Literacy Project • June 2010

The new issue of the ISLP Newsletter is here!

In this issue we describe ISLP project news in brief and bring you many other texts and news that we have received from ISLP country coordinators all over the world.

ISLP is still looking for Country Coordinators to promote and implement project activities. At the moment we have country coordinators from every continent but still many countries are missing. If you are interested in a leadership role for the ISLP please read the "ISLP project news in brief" to know how to give your contact.

...see you in the ICOTS8 conference in Slovenia!



## ISLP Competition

2010/2011

Competition starts at 13th September. Please follow the ISLP web pages to get more information!

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

20.10.2010  
World Statistics Day



Service • Professionalism • Integrity

## ISLP project news in brief

ISLP action plan 2010 is released. This year, our most important activities are:

1. To build the ISLP Network.
2. To share best practices and to give new ideas on how to improve statistical literacy.
3. To launch the next ISLP competition which will be a poster competition. Please follow the ISLP web page <http://www.stat.auckland.ac.nz/~iase/islp/competition>
4. To celebrate World Statistics Day on 20th October <http://unstats.un.org/unsd/default.htm>. We encourage every country to celebrate this day.
5. To analyse the ISLP web pages. The new web resource coordinators will be selected at the beginning of the next year.
6. To start the ISLP long term strategy work. More information about strategy work in the next ISLP newsletter.

Please look at the whole action plan

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

### Call for country coordinators continues

The International Statistical Literacy Project (ISLP) seeks country coordinators to promote and

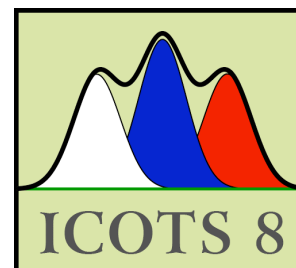
implement project activities. At the moment we have country coordinators from every continent but still many countries are missing. Please look at the list of country coordinators

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

If your country is missing from our list, please consider if you are interested in a leadership role for the ISLP.

In the case your country is already in the list but you are interested in the ISLP, don't hesitate to give your contact information to the ISLP Director ([reija.helenius@stat.fi](mailto:reija.helenius@stat.fi)). We will put you on our ISLP Network list

ISLP open meeting and the country coordinators meeting will be held in 12th July, 18h30-19h30m during ICOTS8 conference in Slovenia. Everyone is welcome!



8th International Conference on Teaching Statistics  
<http://icots8.org/>

You can find the list of selected country coordinators in the following link:

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

## Statistical literacy activities from the Australian Bureau of Statistics

By Gai Mooney

### New textbook, "Introduction to Real Analysis,"

is now available for download free of charge.



#### DOWNLOAD INSTRUCTIONS

1. Click on <http://ramanujan.math.trinity.edu/wtrench/misc/index.shtml>
2. Click on "DOWNLOAD FREE OF CHARGE"
3. Adobe Acrobat (a free download from Adobe.com) will open the file.
4. Click on "File" in the upper left corner of the screen.
5. Click on "Save Page As"
6. Select the folder where you want to download the file.
7. Click "Save". This should complete the download.

A complete instructor's solution manual is available by email to [wtrench@trinity.edu](mailto:wtrench@trinity.edu), subject to verification of the requestor's faculty status.

William F. Trench  
Professor Emeritus  
Mathematics Department  
Trinity University  
San Antonio, Texas, USA  
Home address: 659 Hopkinton  
Road, Hopkinton, NH 03229 USA  
(603 228 1945)  
email: [trench@trinity.edu](mailto:trench@trinity.edu)

The Australian Bureau of Statistics (ABS) continues to be committed to improving statistical literacy, with a number of new initiatives launched over the past 6 months and a continued commitment to established programs.

### School Education sector

The Education Services Unit of the ABS employs three specialist teachers (2 mathematics and 1 geography) to help practising teachers realise the importance and ubiquity of statistics and use them appropriately.

### CensusAtSchool

From this year CensusAtSchool in Australia has become an annual collection to allow teachers to plan their use of the resource more consistently. This coincides with the development of a K to 12 draft national curriculum in Mathematics which was released in March this year. The new curriculum has an increased emphasis on statistics and the CensusAtSchool resource is a great tool to assist teachers address these areas of the curriculum. To complement the suite of online resources currently available, ABS Specialist Teacher Consultants have created QuickC@S, lessons that take ten to thirty minutes to complete and focus on key skills. These lessons have been aligned with the proposed National Curriculum, enabling teachers and faculties to take a whole school approach to using the support materials. In addition, assessment rubrics aligned with the proposed National Curriculum have been put together for CensusAtSchool Mathematics activities.

This year we also developed a CensusAtSchool Facebook page which now has 26 signed up 'fans'. Facebook is just one more way to get our message out that statistics is about the real world, it's fun and it's an essential skill.

### Statistical Literacy Unit Helping our clients make sense of statistics

The Statistical Literacy Unit of the ABS is committed to building the statistical know-how of the Australian community and in particular our key data users. We recently launched a suite of 'Understanding Statistics' webpages on the ABS website. These webpages consist of a range of fact sheets, information guides, video tutorials, presentations and online courses to help our data users to:

- find the statistics they're looking for
- understand statistical concepts and processes
- analyse, interpret and evaluate statistical information
- communicate statistical findings with tables and graphs

A range of Online Video Tutorials are available to assist users to find and navigate to specific information on the ABS website. While an Introduction to Statistics Online Course provides a comprehensive overview of statistics. We have also developed a range of Fact Sheets that assist users to understand statistical concepts and processes, find the most recent population estimates; understand the difference between original, seasonally adjusted and trend data; and much more... Portals have also been developed for people working in specific fields, such as Media, Small Business, and Local, State and Federal Government.

The ABS also delivers a range of Training Courses to our clients to develop their skills for high quality statistical collections and statistical analysis. These courses cover content including: analysing data, survey design, making informed decisions, and questionnaire design. Subject specific courses are also available on Environment, Labour and Demographic statistics.

### New Publication

MacDougall M (2009) Dyscalculia, dyslexia, and medical students' needs for learning and using statistics. *Medical Education Online*, 14(2): 1-8 (<http://med-ed-online.net/index.php/meo/article/viewFile/4512/4692>)

## International Statistical Literacy Project country report – Armenia

by *Tatevik Zohrabyan*

By *Katarina Cobanovic*

At the University of Novi Sad, a new Master course titled Bio Medicine is being planned. This course would provide curricula in mathematics, statistics, mathematical statistics, psychology and other subjects. Professors and teaching professors of some faculties of Novi Sad University would be included in the educational process. Some distinguished professors from neighbor countries would be included in the teaching process also.

The Statistical Society of Serbia is in the process of some modifications and transformation according to the newest state law concerning the establishing of the societies. Meetings have been held in the Statistical Society of Serbia about the society statute and

## Statistics education - information from Serbia

similar changes. In the modification process, a new statistical society of Vojvodina is planned as a branch of the Statistical Society of Serbia.

The Statistical Society of Serbia is the bursary provider for the Professor Branislav Ivanović foundation. According to the family of the late professor Ivanović, his will stipulates that this bursary is to be used to help the best students of statistics in Serbia.

The level of trust towards the government is quite low in developing countries, in general. This phenomenon, with or without any solid basis, applies to numerous government agencies and offices. Armenia is not an exception and falls into the categories of such countries. One of the agencies that people have no trust in is the statistical agency. Being a serious barrier for evidence-based studies and research, this lack of trust also overshadows the availability of statistical data.

The perception that no adequate data is available in Armenia greatly exceeds the fact. Not only do people underestimate the data collected by the statistical services of Armenia, but also that of other independent research organizations or agencies. As such, Transparency International, World Bank, International Monetary Fund, Caucasus Research Resource Center, and many others organizations and individual researchers conduct numerous surveys periodically. However, not many Armenians are aware of these surveys and data. Even some distinguished scholars and scientists are unaware.

The overwhelming number of venues for spreading free statistical data is worthy of serious consideration in order to raise “data-existence” awareness. Products like Gapminder, Google Public Data Explorer, Wolfram Alpha, IMF database, CRRC database, World Bank database, FAO database, EDRC, and many others can be easily shared with the public to gradually transform the lack of trust into appreciation and motivation to use data. It is clear that the understanding of these data and the ability to

use for basic purposes is another major task that should be implemented.

The Initiative on creating the Armenian Statistical Association has been delayed due to the paperwork issues. Statistical literacy is moving forward. In May 2010 the group will be registered as a legal non-profit organization. Simultaneously, the Facebook page and a website will be created which will be advertised through the Armenian Academic Cooperation and in partnership with over 4500 members. In addition, other people in the field will be invited to join. The first task of the organization will be to hold an informational session on what kind of data is available and locations. The next informational session which will take place in June will be on how one can use the data, i.e. data interpretation will be provided. These events will be advertised on ARMACAD website as well as on the newly created Armenian Statistical Association website or Facebook page.

The next report will contain some preliminary survey results of the statistical literacy of Armenians. A survey is currently being conducted among high-school students, undergraduate and graduate students, as well as post-doc scholars. The results of this survey are expected to contain useful information on how to launch the literacy program in Armenia - timing, location, duration, methods, and curricula.

## Building a statistically literate society through school networks

By George Ekol

### Introduction

A large section of Ugandan institutions/ population is simply unaware of the power of statistical literacy. Many people tend to confuse statistics with mathematics and the difference is lost in mathematics. My first priority would be to provide information and examples about ISLP activities that promote statistical literacy in Ugandan schools. Teachers need to appreciate that with the vast amount of data they are bombarded on a daily basis, statistical literacy is not a choice but a need, both for their jobs and for life. They need to be able to organize information in some meaningful way, and also share the same skills with their students and the community they live in.

### Information about ISLP activities

I suggest that The Executive Secretary of Uganda National Examinations Board (UNEB) [uneb@uneb.ac.ug](mailto:uneb@uneb.ac.ug) Mr. Mathew Bukonya, [http://www.uneb.ac.ug/?Welcome\\_to\\_UNEB\\_Home\\_on\\_the\\_web](http://www.uneb.ac.ug/?Welcome_to_UNEB_Home_on_the_web)

is contacted by ISLP to support ISLP activities in Ugandan Schools:

1. Creating awareness among head teachers (and teachers) in Uganda on the activities of ISLP by pointing them to the ISLP Website. (Head teachers in Uganda have a very effective physical link with UNEB).

There are however still many schools (over 80%) without internet facilities. For this group, a PDF file on summary info about ISLP activities could be sent to UNEB who will share the information by print or soft copy.

2. Encouraging basic statistical literacy in schools through teachers would have a long lasting effect because then the students will take back the information to their parents, with a snowball effect.

3. By gathering information and examples of good practice, teachers should

## Contributions from USA

by Milo Schield

### Real Data = Real Fun: In Census at School Program.

In this article, Martha Aliaga (ASA Director of Education) presents the background, current status and future plans of the Census at School Project in the US, (See <http://magazine.amstat.org/2010/04/censusatschool/>)

*International items:* "Assessment Methods in Statistical Education: An International Comparison" edited by P. Bidgood, N. Hunt and F. Jolliffe.

This book will be released in June 2010. Part B on Assessing Statistical Literacy includes Ch 6 Assessing statistical thinking by Jolliffe; Ch 7 Assessing important learning outcomes in introductory tertiary statistics courses by Garfield, delMas and Zieffler; Ch 8 Writing about findings: Integrating teaching and assessment by Forster and Wild; Ch 9 Assessing students' statistical literacy by Budgett and Pfannkuch; Ch 10 An assessment strategy to promote judgement and understanding of statistics in medical applications by McNiece; Ch 11 Assessing statistical literacy: See [www.amazon.com/Assessment-Methods-Statistical-Education-International/d](http://www.amazon.com/Assessment-Methods-Statistical-Education-International/d)



## From Statistics Canada's Learning Resources website

by Mary Townsend

Secondary math lesson : [Piecwise modeling with multiple functions: Federal Debt](#)

A new lesson asks students to analyze data on the federal debt from 1867 to 2008 and then model them with a mathematical function. Students work in small groups to analyze the data for separate time periods. By applying function models to different periods, students realize that Canada's federal debt is best modelled by a series of different function types.



**Canada at a Glance 2010: Lesson to assess quality of life**  
(intermediate-secondary)

Secondary students can compare the quality of life in countries of the OECD (Organisation for Economic Co-operation and Development) using the new data in the international comparisons table in *Canada at a Glance 2010*. This free booklet of Canadian statistics also includes topics like health, crime and the environment and can also be used by intermediate students for graphing and data analysis. To access the newly released 2010 issue of *Canada at a Glance*, as well as two related lessons, go to the **Teachers page**: under **Quick links** choose **Teacher's Kits**, then [Canada at a Glance](#).

**Lesson on kids' sports**  
(intermediate-secondary)

In this new lesson, students will discuss the importance of participating in organized sports and examine factors that influence participation in sports, such as family and community environment. They will consider reasons why kids' participation in organized sports has

declined in Canada and look at the related issue of declining levels of physical fitness among children. Find [Kids' sports](#) in the Health and physical education lessons, under intermediate or secondary.

### Canada's Population Clock

As we venture into a new decade, Canada is growing in population by one unit **every minute and 16 seconds**. There are several factors that affect a nation's population growth such as birth and death rates, immigration and emigration.

Students make a guess at the expected population of Canada by July 1<sup>st</sup>, 2010. For the answer and further details on population growth plus a link to the [world population clock](#), visit [Canada's population clock](#). The lesson [Calculating population growth for a region](#) helps students understand the components of population growth and leads to an appreciation of how the components of population growth can be used for civic planning.

### Investigating Social Justice Issues with Data

Starting in 2009, the United Nations General Assembly has designated February 20<sup>th</sup> each year as the day of Social Issues. Students can explore their personal principles with respect to social justice, equity and human rights by completing a research or a data analysis project. Because of the nature of Statistics Canada's work, we have a wealth of data available to look at social issues. Some topic areas and links to specific data sources are available on our [Investigating social justice issues](#) section. Students can find direct links to data relating to crime, health, labour, spending and income, education, training and learning along with suggested questions to encourage exploration.

The datasets outlined on the *Investigating social justice issues* section are not meant to tell the whole story but are certainly an important piece of the puzzle.

Teachers are perhaps a student's best resource when it comes to

## Statistics Canada

making sense of the numbers, or investigating what the numbers demonstrate. We encourage teachers to open a discussion with their students, to challenge them to critically think about the circumstance around the numbers and to explore more deeply the environment surrounding the issues. See the [Teachers notes](#).

### New Math lesson in E-STAT: Wages of men and women

Use the new lesson [Investigating gender differences in income](#) with your students to examine the relationship between a person's gender (male or female) and their average employment income. Students will retrieve data from Statistics Canada's E-STAT database and create scatter plots. They will analyze the similarities and differences between two scatter plots (comparing data for provinces/territories and large urban centres) and use informal methods to determine the equations of lines of best fit. Students can then discuss in which province or territory females, on average, make the lowest percentage of males' employment income and why this might be.

Canada's next Census will be held in May 2011. Educators play an important role in its success by ensuring that students understand what a census is and what they and their families need to do to complete the census form. Statistics Canada's 2011 Census Teacher's Kit is designed for grades K-12. Each kit contains eight cross curricular activities that are classroom-ready and have been tested to meet provincial curriculum standards. Subject areas covered include language arts, mathematics, science, social studies, geography, history, visual arts, and English as a second language (ESL), allowing students to understand how the information collected in a census can be used.

## Census at School

Over 21,000 students have participated so far this school year in Canada. Check out these new additions to the Canadian Census at School site for the for the 2009/2010 school year:

1. Last year's summary results:  
Under "Data and results" see the Canadian summary results for 2008/2009. You can compare them to your own class results after having your students complete the questionnaire.

2. New video tutorials on Teachertube: an experienced teacher gives step-by step instructions on registering for the project and on preparing the class for the survey, using data with dynamic softwares.

You will find the links to the videos on the Census at School Teachers page



## Applied Quantitative Methods Network

The Applied Quantitative Methods Network (AQMeN) is a collaborative initiative funded jointly by the Economic and Social Research Council (ESRC) and the Scottish Funding Council (SFC) from July 2009 to June 2012. Our main aim is to build capacity in the use of intermediate and advanced level quantitative methods amongst the social science community in Scotland.

### Membership

Membership is free and benefits include access to resources and consultancy services, notification of training and other events, and a wide range of networking opportunities. We currently have over 500 members including both academics and non-academics working in a wide variety of subject areas and organisations who have a shared interest in quantitative methods.

### Survey

AQMeN have created an online survey to help understand the existing expertise and training needs in quantitative methods across Scotland. The results of this survey will allow us to focus our work on developing events and materials that meet the requirements of the Network. The survey is still live and we invite anyone interested to take part at [www.tinyurl.com/AQMeN](http://www.tinyurl.com/AQMeN)

### Collaborative Small Grants Scheme

AQMeN have established this scheme to encourage and support members of the Network to work together on small-scale research, training, knowledge exchange or dissemination projects that involve the use of advanced quantitative methods in any area of social science. The scheme runs annually with a total of three awards of up to £3000 being made each year. The first call for applications is currently open and closes on 14<sup>th</sup> May. Future call dates will be announced on the website shortly.

[www.aqmen.ac.uk/Small\\_grants](http://www.aqmen.ac.uk/Small_grants)

### Statistical Consultancy

AQMeN offers a free statistical consultancy service to PhD students and people working in Scotland. The service provides advice and assistance with those seeking help with study design including power and sample-size calculations, data analysis and modelling, interpreting and reporting results and advice on statistical software.

[www.aqmen.ac.uk/Consultancy](http://www.aqmen.ac.uk/Consultancy)

### Events

AQMeN will shortly publish a programme of knowledge exchange and training events to include: Regression for Categorical Data, Longitudinal Analysis, Multilevel Modelling, Grouping Analysis Methods, Structural Equation Modelling, Geographically Weighted Regression and GIS, and Missing Data. Details of these events will be available at

[www.aqmen.ac.uk/events](http://www.aqmen.ac.uk/events)

### Events in May:

**BBC broadcaster and journalist Michael Blastland presents 'The Public Perils of Statistics and How to Survive Them'.**

11<sup>th</sup> May 2010, 6:30pm

Merchant's Hall, Edinburgh

[www.aqmen.ac.uk/events/MichaelBlastland](http://www.aqmen.ac.uk/events/MichaelBlastland)

**Introduction to Advanced Quantitative Techniques**

13<sup>th</sup> May 2010, 9:15am

Napier University, Edinburgh

[www.aqmen.ac.uk/events/PhD/May2010/methods-taster](http://www.aqmen.ac.uk/events/PhD/May2010/methods-taster)

## News from the UK...



## Books and news

by Gillian Lancaster

**Making Sense of Statistics: a new Book  
from the collection**  
[www.senseaboutscience.org](http://www.senseaboutscience.org)

Statistics are used to measure and make sense of the world. They are produced by the Government, political parties, the civil service, the Bank of England, opinion polls, campaign groups, social research, scientific papers, newspapers and more. But when confronted with stories such as “Crime rate rising again”, “Polls put Tories up to 7% ahead” “Child heart surgery halted at hospital after four deaths” or “Swine flu ‘could kill up to 120m’” how can we work but whether to believe them and what they really mean? Included in the series *Sense About Science*, this guide is not meant to be a lesson in statistics but a source of questions you can ask and pitfalls to avoid. Knowing something about statistics can help you test and debunk arguments and get closer to working out what the figures might be telling us. The book is organized by Nigel Hawkes and Leonor Sierra.

### **Making sense of statistics in *TheTimes***

GUEST POST BY NIGEL HAWKES

**THE  TIMES**

(an excerpt from the *Times*, Edition  
04/29/2010)

Statistics strike fear into many people. They're complex, contradictory, and too often used to pull the wool over our eyes. The General Election campaign has seen a battle of statistics, with the three parties choosing the ones that suit them best. The Government claims that crime is down; the Conservatives, that violent crime has increased. The Liberal Democrats want to give an amnesty to illegal immigrants who have been in the UK for more than ten years, but nobody really knows how many that is: the statistics are so poor that there is no right answer, just a range of informed guesses. (...) Making Sense of Statistics has been produced jointly by Sense about Science and the campaign group Straight Statistics, with the collaboration of the [Royal Statistical Society](http://www.rss.org.uk). It was published on April 29 and joins a list of successful reports by Sense about Science on issues such as chemicals, GM crops, and screening.

by Margaret Macdougall

## GetStats

<http://www.getstats.org.uk>

**A society in which our lives and choices are enriched by an understanding of statistics**  
Developing statistical understanding, know-how and skills are at the heart of a ten-year campaign to be launched by the Royal Statistical Society (RSS) on 20 October 2010, coinciding with the date of the first UN-designated World Statistics Day. In the countdown to the launch, the GetStats website will preview the campaign and how the RSS is taking part in World Statistics Day.

**A bold and ambitious campaign to change a culture:** whilst we are all expected to have some understanding of information in quantitative form, many people lack the statistical skills needed to understand and interpret the data they encounter. This can mean that people cannot get the most out of life's opportunities and challenges.

Addressing this issue underpins the Society's campaign. It aims to lay the foundations of a statistically literate society in which nobody is disadvantaged by a lack of statistical competency - a society in which we can all read, interpret and critique data to a level which meets our needs as employees, citizens and as day-to-day consumers of data and statistics.

The campaign also aims to change the culture towards statistics. It will strongly support statistics teaching and learning which is value-driven, building an understanding of what statistics is for and what it can do in other subjects' contexts - in school, colleges, and lifelong learning.

The campaign is taking a networked approach. The Society will be aligning its programmes and activities, and forming alliances, with a range of existing and new partners. Working in this way we will reach far wider audiences from school children, employers, the media, parliament and users of statistics in the workplace to citizen users.

**International Experience of Statistical Literacy:** our campaign will be strengthened by

learning from others' experience, with an on-going exchange of ideas, lessons learnt and useful resources from other countries. Please share your thoughts around 'good practice' in the development of statistical literacy and tell us about recently developed resources which help to build statistical literacy. Our contact details are shared in the final paragraph below.

**World Statistics Day**  
(<http://unstats.un.org/unsd/wsd/Default.aspx>): this first UN-designated World Statistics day is an exciting prospect. It is a chance to celebrate not only official data, but also the wider role of statistics and the work of statisticians. On the day itself the RSS will host a talk in London by Professor Chris Wild, University of Auckland, on 'Statistical Inference', and the RSS Centre for Statistical Education's international CensusAtSchool workshop will take place the following day. We are also mobilising our network of members to run local activities.

Among our online activities will be a showcase of stories that highlight the beneficial contributions statisticians make in finding solutions and ways forward in relation to important global issues. If you have a project focused on UN priorities such as poverty, human rights, child mortality, diseases and epidemics, which you would like us to profile online please tell us (in 400 words or less) about the activity and its impact.

**Supporting the GetStats campaign:** we hope colleagues and contacts within the wider ISLP network will support our campaign. You can register your interest in the campaign, and tell us how you would like to get involved, on the GetStats website. The RSS Conference (13-17 September 2010, Brighton) has a statistical literacy campaign. We hope you will attend. You can otherwise follow developments on the conference webpages <http://www.rss.org.uk/rss2010> and blog. For further information, please contact: Debra Hurcomb at the RSS, 12 Errol St, London, EC1Y 8LX, E-mail: [d.hurcomb@rss.org.uk](mailto:d.hurcomb@rss.org.uk).



## [Information for the next incoming activities related to statistical literacy in Spain]

By Ana Serradó (Spain)

The next incoming activities related statistical literacy in Spain are the following:

A. "Jornadas de la Enseñanza y Aprendizaje de la Estadística e Investigación Operativa".

Meeting about Teaching and Learning Statistics and Operative Investigation.

From 3 to 5 of June in Melilla (Spain)

Organized by GENAIO (Group of Teaching and Learning of Statistics and Operative Investigation), section of SEIO (Statistical and Operative Investigation Society).

WebPage: <http://www.ugr.es/~alara/>

B "XXXII Congreso Nacional de Estadística e Investigación Operativa" "XXXII National Congress of Statistics and Operative Investigation"

From 14th to 17th of September in La Coruña (Spain)

Organized by SEIO (Statistical and Operative Investigation Society).

WebPage: <http://www.seio2010.es/>

C. "Convocatoria del V Concurso de Proyectos Educativos en EOI para Profesores de Enseñanza Secundaria". "Official announcement of the V competition in Educative Projects en EOI for Secondary School Teachers".

(15 of July)

Organized by SEIO (Statistical and Operative Investigation Society)

WebPage: <http://www.seio.es/Noticias/Convocatoria-del-V-Concurso-de-Proyectos-Educativos-en-EIO-para-Profesores-de-Ensenanza-Secundaria.html>

D. "XIV Simposio de la SEIEM" "XIV Meeting of SEIEM"

From 8 to 10 of September in Lleida (Spain)

Organized by SEIEM (Society of educators and investigators on Mathematical Education)

With participation of the "Group of Didactics of Statistics, Probability and Combinatory" that has its own meeting time on September, 9 and 10.

WebPage: <http://www.seiemplleida.org/>



## ...from Portugal

By Maria Manuel Nascimento

### Math's new Program

Last year we have initiated the experience of teaching a new Mathematics Program in the Basic School Levels (from 6 till 17 years old). Since 2009/2010, around 420

Portuguese schools decided to adopt this program which strengthens the importance and articulation of/with Data Analysis from the Elementary school (6 years old) till the Secondary levels (17 years old). The topic of

Data Analysis is not taught in some situations and the teams accompanying the new program are aware of this in order to emphasize the topic using data in a context approach.

A new book is available for teachers in the site:

[http://sitio.dgicd.min-edu.pt/matematica/Documents/analise\\_dados.pdf](http://sitio.dgicd.min-edu.pt/matematica/Documents/analise_dados.pdf)

as well as others materials (program/classes guidelines, tasks, teachers guidelines) in the site of the Teachers of Mathematics

Portuguese Association  
<http://www.apm.pt/portal/index.php?id=134581>

The ALEA website:

<http://alea-estp.ine.pt/html/desafios/html/desafios.html>

continues to challenge students in two different levels (Level One until 14 years old and Level two from 15 years old till 17), and usually the challenges are based in news from newspapers.

### Seminars

All over the country many teachers do small seminars on Data Analysis. Last 24th April, one of those was held in Bragança, a northeastern town in Portugal. Twelve teachers from the elementary school (6 to 10 years old) attended the seminar. See the photos of this event.

Seminar on Data Analysis held in Bragança (northeastern town of Portugal) in April, 24. Twelve teachers from the elementary school (6 to 10 years old) attended this seminar



by Cyril Parirenyatwa

The activities and events which follow, while not specifically directed on advancing statistical literacy, offer windows of opportunities for advancing statistical literacy in Zimbabwe. The National Statistical Office, Central Statistical Office (CSO), is being transformed into semi-autonomous agency, the Zimbabwe National Statistics Agency (ZIMSTAT) and will be buttressed by the statistical legislation. Its operations and those in the whole National Statistical System (NSS) will be supported by the National Strategy for the Development of Statistics (NSDS).

The statistical legislation establishing the new agency has as one of its functions the coordination and supervision of the National Statistical Systems comprising users, producers and suppliers of statistics and trainers and researchers. To this end a number of Inter-Agency Committees on Education, Environment, Migration, Statistical Training and Zimbabwe National Statistics Database (ZIMDAT) have already been formed to spearhead the development of statistics and capacity in the various sectors. In addition the Department runs an In-Service Training Programme aimed at upgrading the skills of support staff within Government Ministries, Departments and Agencies. A Board Directors will be set up, which will among other duties, “promote and protect the credibility, integrity and impartiality of official statistics” as well as “formulate and monitor the implementation of policies for more effective coordination of the National Statistical System”

Already signals are being emitted from some of the Committees for a review of curricula to include modules on statistics.

Incorporating basic modules in statistics curricula at various levels from pre-, primary, secondary school (- catch them young for statistical literacy) to colleges and universities. The courses may not necessarily be examinable in non-major courses. In Zimbabwe, primary and secondary schools are benefiting from the Presidential Program on Computerisation (by distributing computers to schools) and e-modules could be included. This will not only help to produce good data but lays a firm foundation for the effective running of institutions in the various spheres of the economy employing evidence-based decision making. Plans are underway to include a chapter on statistics as a cross-cutting sector to be targeted for development with strategies, monitoring and evaluation indicators and budget in the Medium-Term Plan (MTP) for 2010 to 2015.

A road map to prepare the National Strategy for the Development of Statistics for Zimbabwe has been formulated and will be launched at a high profile workshop to senior policy and decision makers in Government, private sector civil and society organizations, regional and sub-regional bodies and the development partners in May 2010. The design process will facilitate the advocacy for statistics, mainstream key stakeholders and will follow a bottom-up approach with Sector Plans for Statistics used as building blocks for the overall NSDS. A monthly NSDS Bulletin will be produced to inform

## Windows of opportunities for advancing statistical literacy in Zimbabwe

stakeholders about the design process, ongoing and planned activities.

The Zimbabwe Statistical Association (ZIMSA) was formed in 2009 with four Sub-Committees on Mathematical Statistics and Computing; Statistics Education and Careers; Business, Economic, Environmental and Industrial Statistics; and Population, Survey, Health and Biometrics Statistics. The overarching objective of the Association is to foster the study and knowledge of statistical theory and its application in support of development policies and programmes aimed at improving the quality of life of all Zimbabweans. Other objectives are to promote an interaction among components of the NSS, and to advocate for statistics and to show its relevance and importance to policy and decision making

Obviously more still needs to be done to reach the decision makers and politicians and the general public and training is emerging to be one of the vital cogs in the mainstreaming of statistics. With sustainable statistics development as a guiding principle, the challenge is how the mainstreaming can be done to achieve short-, medium- and long-term results. The ministries of education; training / educational institutions, national statistics agency, sectors and other relevant stakeholders need to forge strong partnerships for ‘statistics extension’ to succeed!

### [Do you Know?]

The February 25 special report that appeared in the *Economist Magazine* entitled *Data, Data, Everywhere* was very informative. ‘The business of information management, helping organizations make sense of their proliferating data is growing by leaps and bounds. Data are widely available. What is scarce is the ability to extract wisdom from them.’ In this 13 page special report in the economist magazine, there was mention of a new profession that has emerged- the data scientist- who combines the skills of a software programmer, statistician and storyteller to extract nuggets of gold hidden under mountains of data.

## Country report, Finland

by Minna Korhonen and  
Ingaliina Seppä

In the beginning of 2010 Statistics Finland established a working group to promote statistical literacy among students and educational institutions in Finland. The group has members from Statistics Finland, from MAOL, the Finnish Association of Teachers of Mathematics, Physics, Chemistry and Informatics and from the Finnish Statistical Society. The group has been set up for two years.

Currently we are working on events that will take place during autumn 2010. The first event will take place in October when Statistics Finland participates in a nationwide refresher course organised by the Finnish Association of Teachers of Mathematics, Physics, Chemistry and Informatics.

Statistics Finland is organizing workshops to promote World Statistics Day materials and the upcoming International Statistical Literacy Competition. Approximately 700 teachers of mathematical subjects are expected to participate

in this event.

We are also making preparations for World Statistics Day 2010 and the first phase of the International Statistical Literacy Competition 2010-2011. Statistics Finland plans to visit schools on World Statistics Day. From the beginning of June we are lucky to have two university students of mathematics joining us to work on these activities. One of them, Ingaliina Seppä, took a short training period at Statistics Finland in January 2010 as a part of her pedagogical studies. Her tasks consisted of updating and de-veloping different statistical learning tools and materials and preparing ideas for World Statistics Day. Here are some of Ingaliina's thoughts about her training period.

*"I would describe my training period as a very interesting and versatile. Even though it was short it gave me a good practical knowledge of many different issues related to statistical literacy. I learned that Statistics Finland is very actively working in cooperation with students and educational institutions.*

*During my training period I familiarized myself with the International Statistical Literacy Project and World Statistics Day. I would say that the best part of my training period was to prepare ideas and materials for the World Statistics*

*Day. To celebrate that day, Finland is providing schools and educational institutions with statistical learning materials like games and small projects. The materials that will be used were selected from almost twenty ideas that we came up with in January. I am very much looking forward to continue my work during next summer."*

This summer, together with the other university student Jukka Sireni, Ingaliina will be involved with some ISLP tasks. The two students will prepare rules and technical implementation for the International Statistical Literacy Competition. They will also develop a competition registration form that will be common to all countries. In addition, Jukka and Ingaliina are going to update the ISLP web pages.



Team Finland: Jukka Sireni, Minna Korhonen (country coordinator) and Ingaliina Seppä

## ISLP team for 2009 - 2013 introduces...



Reija Helenius is the new director of ISLP. She comes from Finland where she works as a Head of Development in the Information Services Unit of Statistics Finland. She is an elected member of ISI and a member of IASE. In her current job my main task is to develop user friendly services for users of statistics. Especially close to her heart are statistical training and national statistical offices' cooperation activities with educational institutions. For the next four years she's leading ISLP together with Dr Pedro Campos and Dr Sharleen Forbes. An ISLP advisory board will assist them in their work. All of them aim to improve statistical literacy worldwide.



Pedro comes from Portugal where he is working as an Assistant Professor at the University of Porto teaching statistics and information systems. He is also working in the Department of Methodology and Information Systems in Statistics Portugal. He is a member of the Research Unit LIAAD-INESC (Laboratory of Artificial Intelligence and Decision Support). Pedro was one of the pioneers in organizing an ISLP statistical literacy competition for the first time in Portugal in 2006.



Sharleen is a New Zealander who has worked at Statistics New Zealand since 1994. Currently she is a General Manager in the Statistics Education & Research Unit there. She also holds an adjunct professorship in official statistics at the School of Government, Victoria University, Wellington. Sharleen has a long-standing interest in mathematics education, in the measurement of gender and ethnic differences in mathematics in particular, and in the application of simple techniques to explain longitudinal data. Sharleen is also a member of IASE & IAOS and an elected member of ISI. She is working very actively in different statistical associations and committees.