A lot done… a lot more to do

Steve MacFeely

The network of country coordinators was launched only ten years ago, in 2009. Today, with 134 country coordinators, spread across 73 countries from all continents of the world, the International Statistical Literacy Project is now truly a global project (see Table 1).

Table 1 - ISLP Network 2018

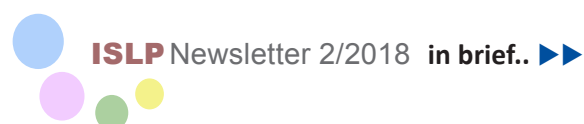| Continents	Number of Country coordinators	Number of Participating Countries
Africa	41	23
Asia	27	15
Europe	42	19
North and Central America	8	6
Oceania	2	2
South America	14	8
Total	134	73

Source: ISLP website (Nov 2018)

This edition of the Newsletter celebrates our global network, with articles from country coordinators all around the world, including Africa, Asia, Europe and Oceania. Reading the articles, one is immediately struck by the enthusiasm and determination that coordinators bring to the project. One can also feel the sense of pride coordinators have for their students. Who knows, perhaps one of those students will be the next Hans Rosling or Nate Silver, having been inspired by the ISLP to pursue statistics further. Wouldn't that be something?!

The role of a country coordinator is a complex one. And often a lonely one. Our Newsletter has many important functions, not least, informing the world about our important work and the progress we are making. It also serves as a vehicle to highlight the pioneering and heroic work being done by ISLP coordinators, sometimes in very difficult circumstances. But most importantly, we hope it helps to motivate and encourage coordinators all around the world, and remind them that they are not alone. We are all part of a tremendously important movement. We hope the articles will inspire new ideas.

We are making progress. A Few examples: Ghana has successfully launched a statistical ICT workshop for young statisticians. Gambia is establishing an association of young statisticians. In Iran, the first book dealing with statistical literacy in the Persian language was published. Haiti has launched its first statistical MOOC (Massive Online Open Course). The new ISLP competition in South America, in its first year, has already seen a huge increase in student participation.

Please read the Newsletter. Be inspired by the great work being done. But remember, our job is not over. We still have much to do.

Season's Greetings and Happy New Year 2019 from the ISLP project

ISLP Newsletter 2/2018 **in brief..** ▶▶

🇨🇻 **CAPE VERDE**

Atividades Realizadas

Júlio Delgado*

Apresentação do ISLP aos organismos governamentais, no sentido de mobilizarem para o desenho e implementação de um projeto/programa nacional de promoção da literacia estatística em todos os sectores e camadas sociais. Foram realizadas no Ministério da Educação e no Ministério da Saúde e Segurança Social de Cabo Verde sessões de apresentação do ISLP.

Secção de Apresentação do projeto ao ministério da Educação

A Sra. Ministra da Educação de Cabo Verde, Dra. Maritza Rosabal, demostrou um grande interesse e manifestou o apoio do ministério na operacionalização do projeto em Cabo Verde a nível nacional. Neste momento já se encontra definida uma equipa (country coordinator e a Diretora Nacional da Educação) responsável para a preparação do projeto com o objetivo da sua implementação/operacionalização no próximo ano letivo.

Country coordinator, Sra. Ministra da Educação de Cabo Verde, Dra. Maritza Rosabal e staff do Ministério (de esquerda para direita)

Secção de Apresentação do projeto ao ministério da Saúde

O Sr. Ministro da Saúde e Segurança Social de Cabo Verde, também manifestou o intesse em ver introduzida a questão da Literacia da Saúde dentro do Projeto Nacional de Literacia Estatística.

Country coordinator, Sr. Ministro da saúde, Arlindo Rosário e staff do Ministério

OBS: Neste momento em Angola, dado a mudança da equipa governamental estamos a aguardar a resposta para apresentação do projeto.

Praia, 7 de maio de 2018

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Activities accomplished in Cape Verde regarding the ISLP

Júlio Delgado*

A presentation of the ISLP was held by government agencies in order to mobilize the design and implementation of a national program to promote statistical literacy across all social sectors. These ISLP sessions were held on the premises of the Ministry of Education and the Ministry of Health and Social Security in Cape Verde.

ISLP presentation session at the Ministery of Education

The Minister of Education of Cape Verde, Dr. Maritza Rosabal, expressed great interest and the support of the Ministry in the management of the project in Cape Verde at national level. Already a team (country coordinator and the National Director of Education) is in place and is responsible for the preparation of the project with the objective of implementation and logistics for the following school year.

ISLP presentation session at the Ministry of Health

The Minister of Health and Social Security of Cape Verde also expressed an interest in seeing the issue of Health Literacy introduced in the National Statistical Literacy Project.

Country coordinator, the Minister of Health, Arlindo Rosário and Ministery staff

Note: In Angola, given the change of government, we are waiting for an opportunity to present the project.

Praia, 7 of May , 2018

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GHANA

Report on the activities and programs of the Ghana Statistical Association (GSA)

Dr. Smart A. Sarpong*

Introduction

I am glad to report on the activities and programs of the **Ghana Statistical Association (GSA)**. I do this for and on behalf of the National Executive Council ably led by the Good Professor Nicholas N.N. Nsowah-Nuamah, a former Government Statistician of the Republic and the President of the Regent University of Science and Technology Ghana.

Contribution to national development

Re-inaugurated in 2016, the GSA has been active in contributing to national discourse in all aspects of national life. In October, 2017 the association organized a national conference to deliberate on our role as Statisticians in the Governments flagship program aimed at industrializing Ghana dubbed "1-District-1-Factory". Our discursions centred on Supporting Ghana's Industrialization Agenda; The Critical role of Statistics and Statisticians. Our advice was that, in addition to traditional company periodic inspections, Statistical Process Control (SPC) approach and statistical techniques should be adopted. We emphasised the importance of early detection and prevention of problems; a strength of SPC, over the other quality assurance methods. With that and the active involvement of qualified Statisticians in business and industry, Ghana could avoid the occurrence of many out-of-control situations; like the Atomic Junction explosion, La Trade faire explosion and many other predictable and hence avoidable occurrences that sadly confront the country.

Strengthening statistical professionalism

Ghana Statistical Association is also strongly leading the establishment of a Business and Industrial Statistics Research Group (BISRG) as a subsidiary of GSA with the objective of, among other things; providing a focus for multidisciplinary consulting and research in technical and managerial methods for improving quality, developing a centre offering courses and seminars for business and industry, aiding the development of undergraduate and graduate programs in technical and managerial methods for quality improvement, facilitating exchange programs between university faculty and business or industry personnel, and finally, stimulating development of innovative training methods in quality for the workplaces.

The Association is also urgently establishing a certification regime that would certify individuals as a "Professional Statistician" with the aim of professionalising the industry and bringing an end to an era when anybody with knowledge in basic statistics could call themselves a statistician.

1st International Conference of the Ghana Statistical Association (GSA)

Planning for the 1st international Conference of the GSA is underway. The conference is proposed to last for two days from 18th – 19th of November, 2018 (**on the assumption that African Statistics Day is 18th Nov. 2018**). This date is to be verified and aligned with the African Statistics Day plans. Activities shall include African Statistics Day celebration to be co-celebrated with the Ghana Statistical Service (GSS), poster and full paper presentation sessions, statistical dialogue sessions, statistical clinics / time with our statistical fathers as well as excursions to various tourism sites in Ghana. The Annual General Meeting of the GSA and the annual dinner and awards night shall conclude the conference activities.

The Ghana Statistical Association wishes to take this opportunity to invite all friends of statistics all over the world to join the GSA in our upcoming conference. Although a call for papers and other preliminary activities are already underway, special consideration shall be given to friends who wish to participate and present their papers. The planning committee can be contacted be email bgordor@ashesi.edu.gh, smartsarpong2015@gmail.com, and n3n_nuamah@yahoo.com.

Long live the Ghana Statistical Association – GSA

Long Live African Statistics

* (Data Management Consultant / Snr Lecturer Kumasi Technical University, Ghana) smartsarpong2015@gmail.com

GHANA

Figure 1: https://www.slideshare.net/bigpassy/symmetry-and-skew

Figure 2: https://www.slideshare.net/dsaadeddin/histograms-and-boxplots
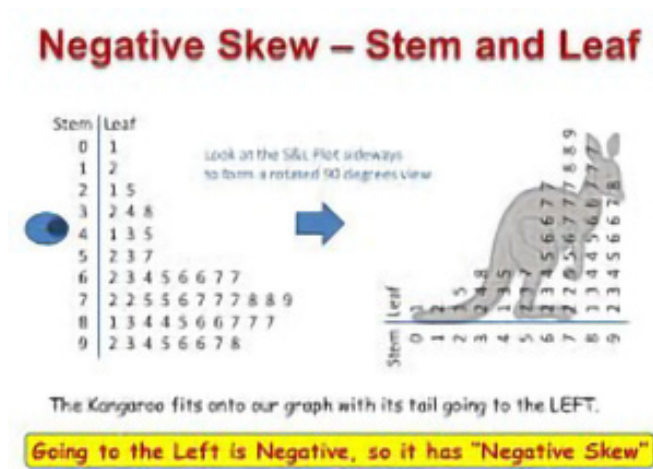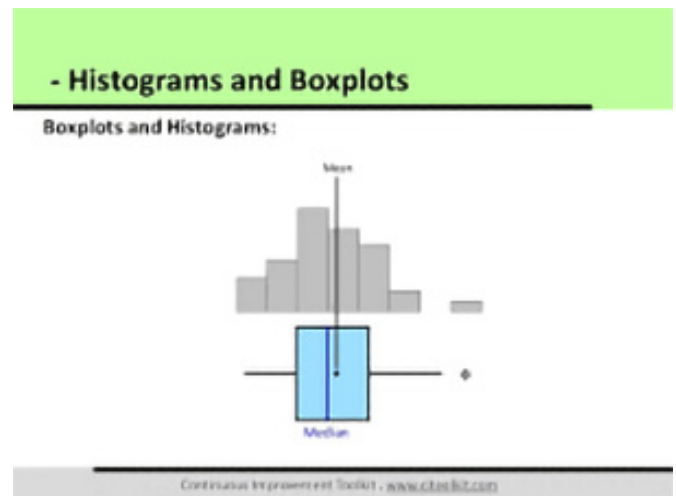
Statistical literacy

Bashiru I. I. Saeed & Isaac Nyanor*

Statistical literacy is the ability to make sense of statistics. Gal (2002) describes it as the ability to interpret, critically evaluate, and communicate about statistical information and message.

Statistics is the science of collecting, organizing, analyzing, interpreting and presenting data for the purpose of supporting more effective decision making. It may be regarded as "making sense of a data". Statistical ideas are useful for understanding and learning from the past, making sense of the present, and drawing inferences about the future. Today, we receive a lot of information through print and electronic media and we need statistics to critically sensitize this information for effective decision making.

Teaching statistics to various group of students in diverse fields is a challenging task as the level of need is different for these groups. Statistical literacy is a valuable skill for all students as they will require some statistical knowledge in their future professional work. There are two groups of students in terms of statistical needs. There are those who will need advanced statistical knowledge to enable them to carry out empirical investigations, interpret their own data and results and report their findings and conclusions. Many more students will need more basic statistical literacy that "involves understanding and using the basic language and tools of statistics: knowing what basic statistical terms mean, understanding the use of simple statistical symbols, and recognizing and being able to interpret different representations of data" (Garfield Joan and Ben-Zvi Dani 2009).

Statistical literacy is undoubtedly a valuable asset in today's information-driven world. The ability to understand and reason with data is necessary for citizens to understand material presented in newspapers, television and the Internet. Statistical literacy will promote good citizenship.

Teaching statistics with examples for us is the ideal situation. The use of examples in teaching statistics help students to develop skills and understand basic statistical concepts and processes (Gordon and Nicholas 2012).

References

Gal, Iddo. 2002. "Adults' Statistical Literacy: Meanings, Components, Responsibilities." *International Statistical Review / Revue Internationale de Statistique* 70 (1): 1–25. https://doi.org/10.2307/1403713.

Garfield Joan, and Ben-Zvi Dani. 2009. "Helping Students Develop Statistical Reasoning: Implementing a Statistical Reasoning Learning Environment." *Teaching Statistics* 31 (3): 72–77. https://doi.org/10.1111/j.1467-9639.2009.00363.x.

Gordon, Sue, and Jackie Nicholas. 2012. "Using Examples to Promote Statistical Literacy." *Proceedings of The Australian Conference on Science and Mathematics Education (formerly UniServe Science Conference) 0 (0)*. https://openjournals.library.sydney.edu.au/index.php/IISME/article/view/6204.

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IVORY COAST

ISLP report – Ivory Coast

Ruben Djogbenou and Gontran Akakpo*

The ISLP statistical poster competition has had a slow start in Côte d'Ivoire. The committee in charge of organizing the competition and finding partners and sponsors at the national level, has itself had difficulties being constituted. Furthermore, the administrative burden of the procedures necessary when dealing with schools resulted in Côte d'Ivoire missing the previous competition.

Since January 2017, good progress has been made with the municipal school of Port-Bouet, including two student exchanges (see photos attached). It is also planned to meet the students of the National School of Statistics and Applied Economics (ENSEA Abidjan) where most Ivorian and west African statistician's study for their engineering degree. In the weeks to come, meetings have been scheduled with many other schools to advertise the competition, and to present the action plan of the team working on statistical literacy in Côte d'Ivoire.

Ten schools have been selected to participate in the competition in Côte d'Ivoire. Each school will nominate a team for each

category. After this registration phase, teams will be invited to participate in training and capacity-building workshops, where they will be taught how to calculate and present statistics, and how to create attractive posters.

At the end of this workshop the teams will have a deadline to submit their posters. The jury will then have the task of selecting three teams per category for the final. The finalists will present their posters at a closing ceremony before receiving the jury's decision. The composition of the winning teams will then be communicated to the ISLP.

The dates of the national competition are not yet finalized. However, the teams that will represent Côte d'Ivoire at the world competition will be known before the deadline fixed by the ISLP.

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KENYA

Increasing demand for statistical literacy in Kenya

Betty Gichohi*

With the phenomenal growth in the ICT industry in the last few years, Kenyan's today recognize the importance of statistical information, statistical skills and statistical knowledge. This has led to a marked growth in the number of student enrolments in statistics courses at universities and other tertiary institutions. Most university courses and programs in Kenya have a compulsory statistics or mathematics course. There is also a lot of pressure for employees to acquire statistical skills given that work places are increasingly becoming data driven with data playing a critical role in virtually all enterprises today. Students with a limited background in mathematics are increasingly acquiring statistical skills that will enable them play roles that require making decisions informed by data. Thus, a typical statistics methods

class will comprise of students with varied mathematical skills as well as varied exposure to practical experience of statistical computation and reasoning.

There is a need to rethink how statistics is taught. Incorporation of technology and use of real life experiments and projects in teaching statistics has been known to enhance learning outcomes. Teaching methods should adopt methods and technologies that stimulate interest among students. Technology should be adopted as much as possible at all levels of statistics education.

Continuous environmental scans that identify new trends and technologies should be mainstreamed in education management. Curriculum developers need to leverage emerging technologies and industry perspectives in any curriculum review process.

The statistical literacy program in Kenya endeavors to collaborate with the various stakeholders to improve statistical literacy in the country.

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Back to Contents

LESOTHO

Promotion of statistical literacy in Lesotho

Relebohile Bulane*

A number of activities have been done in promoting statistical literacy in Lesotho with the help of the Statistical Office (Bureau of Statistics) and the National University of Lesotho (through the Department of Statistics and Demography). Last year young statisticians took part the in celebration of the Statistics Day (an annual celebration by the Bureau of Statistics Lesotho. I am currently working with young statisticians, students to carry on the activities, and new graduates. Some of these graduates are also visiting their village high schools to teach students about statistics.

Activities during the statistics celebration

1. Career guidance in statistics at one high school. The plan was to visit more schools.
2. Presentations during the statistics celebration that were mainly meant to teach the public about statistics and its importance.
3. At the same event young statisticians also sketched drama about collection of data in a population census.
4. There was also a session on radio to also disseminate population census preliminary results.

All the above-mentioned activities were done under the statistics office which we approached and convinced them to allow us to take part in the celebration.

Other activities

In preparation of the national statistical poster competition I have approached different departments at national University of Lesotho where I am currently employed. Students seemed positive to take part in the competition. I am yet to visit high schools. There has been a delay due to the fact that there are procedures to follow with Department of Education before making visits. We hope to make visits as soon as we are done with the processes.

I am however not reluctant to mention that this competition is huge, it needs more dedicated people, and at the moment there are a few people engaged.

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REPUBLIC OF NIGER

Introduction of the new country coordinator of Niger

Ibrahim Sidi Zakari*

Dr Ibrahim Sidi Zakari has been serving as an Assistant Professor in statistics at the Department of Mathematics and Computer Science (Faculty of Sciences and Technics, Abdou Moumouni University of Niamey, Niger) since 2014.

He is a member of the Global Young Academy (GYA), the Next Einstein Forum Ambassadors, and the Mandela Washington Fellowship for Young African Leaders programs.

His previous professional experiences include teaching Information and Communication Technologies (ICT) at Cadi Ayyad University (Morocco), and serving as a Data Analyst and Modelor at CAPED (Niger Prime Minister Office).

He promotes statistical literacy through teaching, capacity building (for Bachelor, Master and PhD students), participation to transdisciplinary research projects, regional open data conferences and competitions. In 2017, he won the West African regional competition (vote of the public award) of the Agence Universitaire de la Francophonie (AUF) for his innovation in pedagogy entitled IAG-CoRECE (https://youtu.be/76EWKi583eA).

Furthermore, he regularly collaborates with the National Institute of Statistics on empirical studies as well as with the National Higher School of Statistics.

Although mobile phones and smart devices offer many opportunities for developing statistical literacy, access to the internet and awarness about the importance of statistics still represent challenges in his country, where the official langage is French.

Participating in the International Statistical Literacy Project (ISLP) is important for addressing those challenges and in contributing to developing the next generation of statisticians and data scientists with backgrounds in both English and French.

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NIGERIA

ISLP country coordinator promotes statistical literacy among teenagers in Lagos, Nigeria

Awe Olawale*

In a bid to promote statistical literacy and enhance a knowledge of statistics nation-wide, the ISLP country coordinator Olawale Awe has started to engage with teenage students through regular training sessions dedicated to statistics and data science in Lagos, Nigeria. This work was begun under the auspices of AULISSDA (Anchor University Laboratory for Interdisciplinary Statistical Science and Data Analysis), which began in November 2017 with nine students (see photo).

The students, aged between 15–17, saw it as a great opportunity to explore a new field of learning despite the fact that they did not fully understand what statistics entail or what they have to offer. Some students initially saw this opportunity as a waste of time, but after a few months of training they saw the need to join the team after seeing the products of the training.

AULISSDA started with nine students but now has over thirty, involved in training at our statistics laboratory. None of the trainees has ever regretted taking that bold step.

However, to make learning easier and more interesting, Olawale came up with the brilliant idea of dividing the students into five groups of six students each, in order to ensure the full participation of all students as shown in the picture below. They are tutored by the amiable lecturer Dr. O. O. Awe. Each group has a particular day assigned to them, and there's a plenary class on Saturdays.

Various topics have been taught, including:
— Importance of Statistics and Data Science;
— Data Analysis and Visualization;
— Time Series Analysis;
— Aims of LISA 2020 and ISLP; and
— Introduction to R and SPSS programming.

Presently, the students are being introduced to R programming via R-Studio, where they are learning techniques like importing data, concatenating variables, plotting graphs, smoothing series and forecasting.

Recently, students also developed and administered their own questionnaires in order to gather data, which were returned back to the statistical lab, coordinated by Dr. Awe, for statistical analysis by the students.

These activities are just the tip of the iceberg: we continue to promote statistical literacy; to deliver beyond our expectations; and bring the vision of ISLP (https://iase-web.org/islp/) and LISA2020 (www.lisa2020.org) to life in Nigeria. We are planning to organise National Statistical Poster Competitions to fulfil the mission of the ISLP. Our young, trained students will serve as ambassadors at various high schools around the country – promoting and conducting the activities of the younger students during the poster competition.

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SENEGAL

The Senegalese Association for Statistics (ASTAT) – promoting statistical literacy for better decision making

Omar Sene*

On May 13, 2017 in Dakar, the Senegalese Association for Statistics (ASTAT) organized a General Assembly to renew its bureau. During this General Assembly the new elected Bureau proposed a 2017–2019 program of activities consisting mainly of debates, public conferences, colloquia, panels, and other activities promoting statistical literacy.

In accordance with the program of activities adopted, the Bureau has given itself the resources to achieve the various objectives assigned. Public expositions and debates, a public conference and other activities have marked the actions carried out since.

Public expositions and debates

The Bureau has organized a total of three public expositions and debates. These have focused on the characterization of the middle classes in Senegal, the Multidimensional Poverty Index (MPI), and the United Nations Fundamental Principles of Statistics. They were chaired respectively by Jean Rodrigue MALOU, Mamadou AMOUZOU and Mamadou NIANG.

Public conferences

A public conference was organized on 20 December 2017 at the amphitheater of the National School of Statistics and Economic Analysis (ENSAE). It was chaired by Dr. Boubacar CAMARA, an retired UNESCO economist, statistician, and author of the book *"Comment sortir de la pauvreté?"* The conference dealt with the theme: "How to get out of poverty: the role of statistics" and benefited from the financial support of the Directorate General of Planning and Economic Policies (DGPPE) and the National Agency for Statistics and Demography (ANSD). The conference was a real success in terms of mobilization. Indeed, it was attended by more than a hundred people. In addition, a live transmission was made on social media and more than 1,000 people watched online. It also benefited from the remarkable presence of the press and former Directors General of ANSD including Lamine DIOP and Babacar FALL.

Mamadou NIANG, the newly elected president of ASTAT for the period 2017–2019 talking to the press just after the elections.

ASTAT's conference held at the amphitheater of ENSAE.

Recreational activities and statistical promotion activities

ASTAT took part in the celebration of the activities of the African Day of Statistics 2017 including the organization of the soccer match between ANSD & ASTAT and SONATEL, the national telecommunications company.

In addition, an ASTAT Facebook page is created and has more than 1000 members who liked and followed it. The page can be found via this link: https://web.facebook.com/astatsn/

Perspectives

ASTAT will continue to reinforce its activities to improve and promote statistical literacy in Senegal. The association will focus on the following activities:

— Continue to organize public expositions and panels on a quarterly basis;
— Regularly update website and social media;
— Organize at least two public conferences;
— Continue to advocate for a National Statistical System to increase the number of members;
— Energize young statisticians to participate in ASTAT's activities;
— Launch an ASTAT newsletter;
— Organize the first edition of Senegalese ISLP poster competition.

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★ **SOMALIA**

The progress of official statistics in Somalia

M.H. Abdullahi*

The statistical office of Somalia was established by law No.35 in 1970 at the Central Statistical Department (CSD), and was headed by a Department Director, who was qualified as prescribed in the Civil Service Law of Somalia (SCL) before the collapse of the central government in 1990. Article 4 of law N.35 described the function of that department. It was designated to collect, compile, analyse, disseminate and publish statistical information. In addition, it was also responsible in organizing and conducting census and other statistical surveys or in cooperating with other competent ministries, regional, district authorities, and autonomous agencies. It was in charge of supervising and coordinating the statistical work of all ministries and other government institutions by providing technical assistance such as statistical forms, questionnaires, and any other documents for statistical purpose.

Historically, the Italian colonial administration in the 1950s, had tried to estimate the population size in areas under its control in Somalia. They employed an indirect method to estimate the population where clan chiefs provided the number of members of their sub-clans. Furthermore, in the 1950s, a civil registration system was initiated during Italian colonial rule to register and issue identity cards to Somali citizens age 18 years and above. This system recorded name, age, sex, place of birth, marital status, as well as place residence of each person. The civil registration system continued and was expanded in the post-independence period, especially during the 1970s and 1980s by the military regime.

The CSD carried out surveys before the collapse of the central government in 1990. Among the most useful surveys that the department had conducted were:

— A first *Population and Livestock Census* in 1975, which was the first census in the history of Somalia. The total population according to that census was 3.3 million persons.
— A second population census, which was conducted in 1986/7, and the results of which were never disseminated officially.

However, the war in Somalia in the 1991 destroyed the statistical systems in Somalia. All of the institutional and statistical infrastructure put in place by the CSD was dismantled including the statistical database systems. The destruction of the department resulted in no data or statistics being collected, compiled or disseminated for the country.

Finally, the African Development Bank (AFDB), Statistics Sweden and other UN agencies such as UNFPA, and other international organizations, have started a statistical development project to support the Federal Government of Somalia to establish legal and institutional frameworks required for a national statistical system. The partners support the development of the National Strategy for Statistical Development Plans as well the Statistics Acts. The Federal Government of Somalia is hoping to undertake development planning for the country to provide a medium term framework for realizing the country's long-term and sustainable development goals. To assist with this ambition, the statistics office of Somalia has developed the Somalia National Statistical Capacity Building Project.

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SWAZILAND

Introduction of the new country coordinator of Swaziland

Tenanile Nono Nhlabatsi*

I am a 24-year-old Swazi woman. I am currently a student at the University of Swaziland studying for a Bachelor's degree in Social Sciences. I have just finished my 3rd year, and I am now in my final year. I am also serving my internship at UNISWA Foundation.

In Swaziland we have a Central Statistical Office (CSO), which is empowered by the Statistics Act of 1967 to collect and analyse statistics. Their mission statement is:

"To effectively coordinate the National Statistical System, provide high quality statistical data and information required for evidence-based policy, planning and decision-making for national socio-economic development, administration, accountability, and to promote a culture of using statistics".

Unfortunately, this government department currently does not have a programme to create awareness for upcoming and prospective statisticians about the importance of statistics. It is unfortunate too that our primary and high school educational system does not provide statistics as a subject.

At university level though, (University of Swaziland) which is where students typically first encounter statistics, we have a society called the 'StatsDem Society.' It comprises of students majoring in statistics and demography; from first year to final year. They do their bit to promote statistical literacy by coming up with yearly outreach activities. For example, they visit high schools around the country to teach basics statistics to students. The StatsDem Society also teaches completing high school students and encourages them to take up statistics as a major should they enroll at university. They engage students by challenging them with statistical problems to see how they try to solve them. These initiatives are all in early stages of development, as most university students face time and resource constraints.

I have introduced Isibalo African Young Statisticians in the university which will encourage students to write statistical papers of good enough quality to publish. I believe it is through this society that statistic literacy in Swaziland will develop over the coming years. There was also a stereotype that statistics is not for females, but I am glad to report that this stereotype no longer exists and female students are flocking to statistics.

I have seen the competition poster and requirements, which I have shared with the student body in my university. Swaziland is capable of participating in this competition at university level.

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TANZANIA

Tanzania ISLP update

Elieza Paul Milonga*

Tanzania is participating in the statistical poster competition of 2018−2019. To date I have managed to engage six undergraduate students who are working on posters to be submitted to me soon.

For the sake of promoting statistical literacy and the poster competition to everyone in Tanzania, I wrote a paper, presented at a conference in Saint Augustine University (SAUT) in Tanzania. The purpose of that paper was to promote the project and the poster competition, and make university students, academicians, UN agencies, and other stakeholders, especially journalists (who are the main actors in spreading news) aware of the project. The paper was entitled "Journalists' Data/ statistical Literacy for industrialization in Tanzania". (see the picture below).

The presentation generated a lot of interest; many people asked questions and were interested to join the movement to promote the competition and participate in it. Therefore, I expect an increased number of participants as time goes on.

Someday I hope to see an international winner from Tanzania.

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ZAMBIA

Yasa Zambia's first ISLP poster comptition experience

Chikoloma Nakazwe*

Facilitating the 2017 International Statistical Literacy Program (ISLP) Poster Competition in Zambia was a delight for the Young African Statisticians Association (YASA) Zambia team. The team consists of volunteers from different backgrounds but with one common goal. To utilize their acquired knowledge and skills to better empower future generations through the use of statistics.

The ISLP Poster Competition provided a perfect platform from which the Association could assess its capacity to serve students with training in statistical research, data analysis and presentation skills.

The Process

YASA Zambia engaged the Ministry of General Education, the overseer of primary education in Zambia, to seek for authority to carry out Statistical Poster Competitions in selected primary schools. Authority was granted after which five schools in Lusaka urban were selected and approached to take part in the competition. Two of the five schools visited were selected to participate in the competition. The selection criterion was based on

Kabulonga Primary School students with Mrs Kankuyeye, their Math teacher, during the poster preparation meeting

willingness to participate in the competition and availability of a dedicated careers teacher who could lead the process together with the YASA Zambia team.

However, owing to administrative delays, the other school which was selected could not participate in the poster competition. Only one school (Kabulonga Primary School) managed to successfully participate and complete the Poster Competition.

The program was structured into three main activities. Firstly, the students conducted mini surveys on the history of the country. Secondly, they summarised the survey process and results onto posters. And thirdly, the best posters were selected and these were forwarded in electronic format to the local country coordinator.

The Students

The students were excited to be part of such a competition as the activities they participated in really challenged their research and development skills. The YASA Zambia team were impressed with the students' overall level of aptitude and the quality of work they created. This gave an indication that statistical skills exist but are not explored or nurtured among all ages of learning processes in Zambia.

The ISLP competition was the first of its kind among young students in public primary schools. The fact that the ISLP competition had no participation fee made the competition attractive to the students and made it easy to get buy-in from teachers at the school. Teachers were quite dedicated to see the process complete and pupils were eager to learn new skills (use of statistics to tell a meaningful story).

The Outcome

The expected outcome from the poster competition was that students would have:
— Improved understanding of their national history
— Improved creativity through the use of posters to tell a story
— Improved statistical presentation skills

Poster selection process

From the results, the YASA Zambia team observed, the students were able to achieve all the above. Each poster they created told a unique story about Zambia's national history. The students were able to interpret and successfully present their findings through their posters. The competition brought out the creative side in them.

The responsibility of judging to select the winning posters was given to the teachers at the School. The teachers anonymously ranked each poster according to its level of originality and creativity, content (use of statistics in telling the stories), and presentation. The two highest ranked posters were then chosen as the winners of the national competition. The winners were presented with prizes at a separate ceremony and all the students received certificates of participation.

Challenges

Despite coordinating the competition with just a few students, it wasn't without challenges. The Zambian Chapter of the Young African Statisticians Association is completely run by volunteers; thus, it was difficult to have the whole team available at all times. Due to work commitments, it was difficult to focus the attention of the team (YASA Zambia) to the poster competition. More importantly, a number of students were challenged as they had no access to laptops at home. That meant the only time they could work on their posters was during the meetings arranged by the YASA Zambia team at the school.

In addition, the majority of sessions with the students could only be held on weekends in order to allow for normal participation in regular school activities. This was also because of the work commitments of the YASA Zambia team. However, most of the students could not attend the meetings during the weekend due to family commitments.

Despite these challenges, YASA Zambia team managed to give each student individual attention, allowing them

to learn and reproduce good quality research work through statistical posters.

Best moments

One of our best moments as a team (YASA Zambia) was when the posters were brought to the school's computer lab and the teachers had to judge and select the winning poster in each category. The surprise on their faces when they saw the posters was priceless. They never thought their students could produce such great work. This enlightened the school management that there were statistical talents hiding within their school. Since then the school management have pledged to give full support to their students to take part in such innovative events going forward.

Lessons learnt

A number of lessons were learnt from this experience. Overall, YASA Zambia gained an understanding of what it takes to organise a poster competition. The challenge for the team in Zambia is now to bring the poster competition to scale. This will start by getting more schools on board and seeking adequate funding to coordinate a much larger pool of students across the various schools in Lusaka, and eventually across the country.

The YASA team in Zambia believes the objective of building statistical capacity and implanting the desire for statistics in the young Zambian was achieved without doubt with the ISLP competition for 2017. The poster competition gave YASA Zambia a platform to implement this strategy and equip the young students with the necessary skills to use in their future academic and career endeavours.

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🇮🇷 **IRAN**

Recent news and activities regarding statistical literacy

Afshin Ashofteh*

News

The jury of the Commemoration of Research and Technology Center, selected Afshin Ashofteh, as one of seven top researchers in the banking system. He has published 16 papers and four books in Persian dealing with financial data science, of which, two books and three papers dealt directly with statistical literacy. One of the books was selected as the book of World Statistics Day (WSD2010) by the Statistical Society of Iran, and a second one was selected as the reference book for mathematics courses in high schools in 2016 by the Ministry of Education. As a result, Mr. Ashofteh received an encouraging letter from the governor of the Central Bank of Iran and an award from the head of the Monetary and Banking Research Institute in a ceremony.

Activities

In January 2018, data literacy and big data mining in banking and financial systems was presented as a five-hour talk by Mr. Ashofteh to specialist and senior researchers in the banks which was organized by the Central Bank of Iran. Additionally, a short course about new approaches in statistical systems and imbalanced big data mining was held for selected specialists in the Central Bank of Iran.

The last two related activities of this ISLP coordinator were a short talk about statistical literacy for PhD students of Nova University in Lisbon in April 2018, and a two-hour-talk about data science, statistical literacy, digital currencies, and new related technologies in the School of Business and Economics in May 2018.
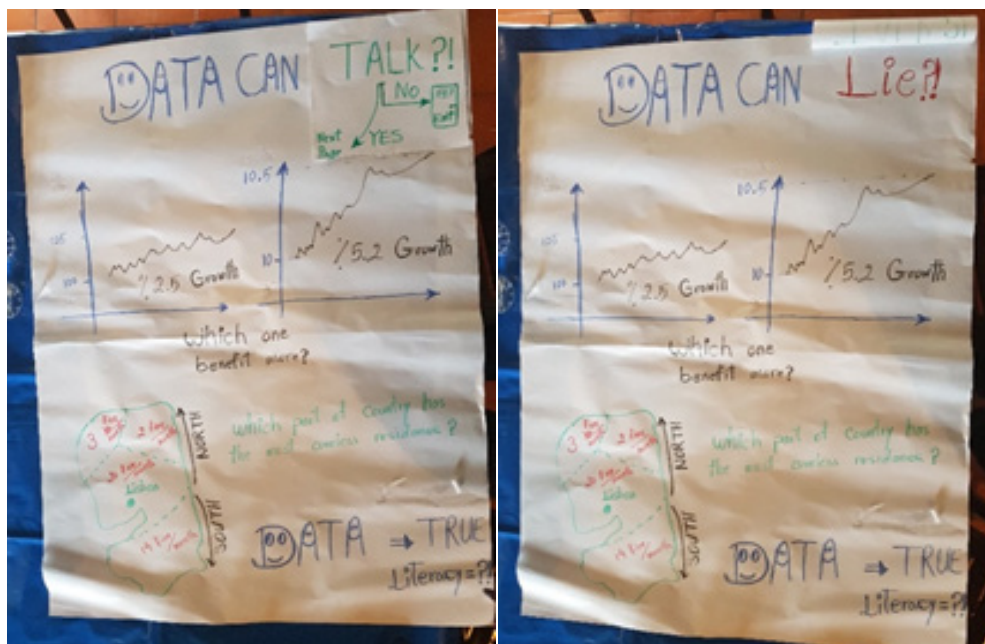
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CHINA

Introduction of the new country coordinator of China

Will Zimmerer*

My name is Will Zimmerer. I'm from the USA. I graduated from Colorado Mesa University in 2009 with a bachelors' degree in mathematical science with a concentration in statistics. I focused my capstone project on applications of logistic regression.

Ever since I have worked as an educator at the secondary level. After going back to school to get my teaching license, I started teaching in Arizona in 2011. I started teaching AP Statistics in 2013 and have been teaching it ever since. Since 2016, I have been teaching statistics in China. I consider myself an advocate for statistical literacy and believe that statistics is a mathematics course that should be accessible to all students. I am motivated professionally to develop a school community of statistically literate students.

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MONGOLIA

Introduction of the new country coordinator of Mongolia

Munkhtuya Purevsuren*

To date, statistical literacy has been taught only in high level education institutions. Since 2017, Mongolia has focused more attention on improving statistical literacy than before. To improve the content of general curriculum statistics courses for 1-11th grades of general education schools, and to improve students' knowledge of mathematics and statistics, the Minister of Education, Culture, Science and Sports, and National Statistics Office of Mongolia, signed the Joint-Order on cooperation on 3rd October 2017 to enhance the resources of the current statistic literacy budget.

On 31st July, 2018 I was confirmed as an associate partner for the "Implementing Serious Games in Entrepreneurship Education (ISGEE)" project. Within the scope of this project, my team and I will be working on solving a variety of challenges, such as, finding a common language and maintaining continuous attention during a lecture. We will help and assist HEI lecturers to find alternative ways of teaching. We will also provide guidance to those using conventional teaching methods, which may be inadequate for teaching entrepreneurial skills and competences.

My up to date research mostly concentrates on all aspects of social and economic phenomenon such as education, unemployment, poverty, crime and human morbidity of the country. All of these are subject to statistical science and analysis. Thus, statistical literacy increasingly is considered an important outcome of schooling. I would like to provide resources to help the public as well as teachers and secondary students awareness of statistics; relevant for issues like money, life expectancy and understanding society.

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RUSSIA

Promotion of statistical literacy in Kemerovo region

(South-East of Western Siberia, Russia)

Irina Karataeva*

The Statistical Service of Russia is more than 200 years old. It has changed many times over the years to match the informational needs of society and government at the time. The history of Kemerovostat (Kemerovo Department of Federal Statistic Service of Russian Federation) and statistics in Kuzbass began in 1943 with the establishment of the Kemerovo Region (Southwestern Siberia, Russia). This is visually presented in the Corporate Museum. Exhibits include: computer equipment, archive photographs and documents, badges, medals, personal belongings of workers, dated 20–21 centuries.

Exhibits in the Kemerovostat Corporate Museum.

Children love to see old statistical electronic devises.

The museum plays an important role in strengthening the corporate culture of our statistical organization and creates a positive image. It is located in the conference hall, where senior managers host meetings and competitions for job seekers. Excursions for students and schoolchildren, as well as for new employees of the organization, regularly pass through the museum and conference hall.

Children of Kemerovostat staff learn about statistics and their parents' contribution.

In the Kemerovo Region, particular attention is paid to improving the statistical literacy of young people–students and school children. In the future they will be required to participate in statistical observations and surveys, and, perhaps carry them out if they become statisticians. For many years training seminars have been organized in Kemerovostat for students studying economics at Kemerovo's educational institutions to help them find statistical information on internet portals and Federal Statistic Service of Russian Federation databases. This information will assist them with both their educational and professional activities.

Students learn how to find data on the internet portals and databases of the Federal Statistic Service of Russian Federation.

Child's depiction of agriculture during the 2016 Russian Agricultural Census campaign.

For many years, information funds in Kemerovostat have made a significant contribution to research activities comparing the Kemerovo Region with the Ruhr Coal Mining Region in Germany. These studies have been done by students at the Institute of Geography and Geology, Greifswald University (Germany) in cooperation with the Kemerovo State University.

Specialization in coal mining in the Kemerovo Region is the basis for cooperation with the federal scientific magazine "Coal of Kuzbass". Interaction with other media includes other printed and electronic publications. An article on any topic can be improved by statistical information which Kemerovostat makes available.

Besides the ISLP poster competition, Kemerovostat holds other competitions and events at regional level designed to popularize statistics. For example, preparation and publication of the results of the Russian Population and Agricultural Censuses is always accompanied by a wealth of explanatory information and events. For instance, at the beginning of the Russian Agricultural Census in 2016, there were amateur photography and children's drawings competitions on the topic of agriculture. There were also open lessons where children learned how to conduct a census and how to process the results. In Kemerovo State Agricultural Institute there were seminars where students learned how they could use unique statistical data in their studies and professional life. There was also TV and radio coverage on the preparation and carrying out of the census. People of all ages in Kemerovo Region took an active part in these events. After the Russian Agricultural Census results are published in 2018, a poster and infographics contest for schoolchildren will be held.

Amateur photography competition, 2016 Russian Agricultural Census campaign.

Schoolchildren listening with great interest about the Russian Agricultural Censuses.

Schoolchildren trying to conduct a census and process the results.

Interactive presentation on the Kemerovostat internet portal – 'Kemerovo is 100 years old'.

To demonstrate the variety of statistical data available and examples of how to visualize them, Kemerovostat uses infographics—posting bright presentations on various topics on the internet portal. These presentations are a good example of using statistical information to create research and analytical materials for scientists, teachers, managers and marketing managers of different levels.

In 2018, Kemerovo—the capital of Kuzbass—celebrated their 100th anniversary. An interactive city history in numbers was launched on the Kemerovostat internet portal. Visitors to the portal can see the most important changes in city life and track changes over time.

Visitors to Kemerovostat receive event flyers on various state holidays and important dates. Statistical data for sev-

Flyers for visitors on Victory Day

eral years is presented in the form of schedules, charts, diagrams to help readers understand the information better.

These and other actions promoting statistical literacy in Kemerovo Region are regularly covered in the News published on the Kemerovostat internet portal so that people can enhance their understanding of the statistical service activities and take part in ongoing events.Students learn

how to find data on the internet portals and databases of the Federal Statistic Service of Russian Federation

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TAIWAN

ISLP Poster Competition update report

Ping Chen Tsai*

Progress made so far

In June, we held a preliminary event for the poster competition. There were 32 students divided into eight groups for the event. The students prepared a poster, using statistical methods to investigate topics and research questions which they selected themselves. They students also had to present their posters.

I was also invited Professor Lin, professor of Statistics from National Cheng-Kung University (NCKU) of Taiwan to act as a referee. Professor Lin provided feedback to the students on their presentations, as well as on the layout and content of their posters. A written record of Professor

Lin's comments and evaluations were taken. A second referee, a professor of general education in STUST, will also review the posters and give an evaluation.

Plans ahead

In September, the Department of Statistics in NCKU will host a similar event, which is to be organized by Professor Lin. About 50 students will participate in this competition. I will prepare a set of guidelines for the competition in Taiwan, which is expected to be released in mid-July. We will then send a call to universities in Taiwan looking for competition organizers. Finally, Professor Lin and I will contact SAS Taiwan to see if they will sponsor our competition.

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🇧🇬 BULGARIA

Introduction of the new country coordinator of Bulgaria

Antoanetta Ilkova*

Antoaneta Ilkova is the Head of Publications, Library and Digital Products Department at the National Statistical Institute of Bulgaria. She is in charge of dissemination and communication on statistical products and services with a focus on the development of data visualisation tools and making data more relevant to different user groups. Her duties include collaboration with schools and the Ministry of Education and Science in support of statistical literacy projects in Bulgaria.

She has been working for over 18 years at the BNSI. She is a member of the Dissemination Working Group and the statistical literacy work package of DIGICOM. She is a coordinator of statistical literacy activities at the BNSI, including the European statistical competition and as well as coordinator of the ESSnet consortium on LOSD.

'In my daily job I meet users with different statistical skills and my objective as a statistical literacy coordinator is to work hard together with my team to increase the statistical literacy of different users especially of school students. Additionally, it is necessary to continue strengthening the statistical skills of teachers as well. Working with school-teachers and students is new experience for us. We have carried out activities aimed at increasing the statistical literacy among media and business in Bulgaria. Starting work under DIGICOM project, a lot of initiatives and events have been planned and organised. Many of them were specially designed for students with aim to provoke their interest and to help young people to become more familiar with basic concepts and understand better statistical data and enhance the proper usage of statistical data. For instance, the BNSI has started carrying out several activities in field of e-learning and gamification. Target group is mainly pupils 12- 17 years old.'

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🇪🇬 EGYPT

Introduction of the new country coordinator of Egypt

Ayman Hathoo*

I work as General Manager at the Central Agency for Public Mobilization and Statistics (CAPMAS), in the Central Administration of Statistical Training for the Demographic and Censuses Sector. This role includes coordinating with various experts to publish statistical data and bulletins to achieve agency targets.

I have a Master's degree in "Demography" (2014) from the Institute of Statistical Studies and Research. I have experience in analyzing and interpreting statistical data using SPSS and STATA.

I also helped to establish the "metadata unit" in 2010 to supervise both implementation of archiving and publishing statistical data and its related metadata according to international standards and documenting the statistical data production phases using the Generic Statistical Business Process Model "GSBPM".

I conduct periodic workshops to activate and update staff members' statistical literacy. I also supervise statistical training for university graduates, and for staff working in public and governmental offices who provide CAPMAS with data needed to produce official statistics.

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ESTONIA

Greetings from Estonia

Aime Lauk*

Fruitful cooperation between Statistics Estonia with teacher organisations continued in 2017. This built on the good cooperation that has existed for many years with Mathematics Teachers' Association and more recently with Geography Teachers' Association and Association of Business and Economics Teachers.

To find determine how and what statistics have been used by teachers, and what their needs are, we asked them to make a presentation. For this, the associations conducted a survey of their members and presented the results during a training day. The idea that trainees speak about their previous use of statistics and their needs has proven so valuable that it has already become an established tradition. Statistics Estonia gets their questions and survey results in advance, so that training materials and courses are geared to the topics that teachers need most. In developing products for pupils, feedback from teachers is essential.

The autumn school for the Estonian Geography Teachers' Association in 2017 was entitled "Data analysis and visual depiction in the problem-based learning of the digital age". On the first day of autumn school (Photo 4732), we spoke about sample surveys and samples, use of location-based statistics, production and publication of regional statistics, population trends and population censuses. Chair of the association Piret Karu made a presentation "What do geography teachers expect from the producers of official statistics". (Photo 4777; 4775). On the second day, we focused on user training – instructing teachers how to use Statistics Estonia's and Eurostat's databases and their products, which could both be useful for geography classes.

The winter school for business and economics teachers (4 January 2018) began with the association chair's presentation "Using the services of Statistics Estonia in the classroom- Results of economics teachers' survey." This time statisticians spoke about household expenditure, retail trade, foreign trade, GDP and overall trends in economy. Statistics Estonia presented various statistical products and invited teachers to use recently published data more often, to understand and explain what is happening in society and economy. As feedback, the teachers asked for different online quizzes for pupils.

All of the presentations made and photos taken at the autumn and winter schools are available on Statistics Estonia's website at https://www.stat.ee/eesti-geograafiaopetajate-uhingu-sugiskool-2017

Cooperation continued with mathematics teachers. In the spring, the University of Tartu in cooperation with Statistics Estonia organised a competition for pupils to create statistical exercises. The competition exercise had to involve an important problem, the solution must use data from the Statistics Estonia database and involve mathematical knowledge. Both the exercises and the proposed solutions were assessed. The assessment involved: accordance with instructions; relevance of the problem; mathematical correctness; diversity of methods used; use of problem-solving methods; formulation and diversity of research questions; language used and quality of final presentation; and correct referencing (incl. considering copyright) were all taken into account. Before the competition, we visited various schools in Estonia and spoke to pupils and teachers about what can be found in the statistical database and how to use databases and metadata. Cooperation with teachers' associations helps us to reach pupils, and helps both teachers and pupils to become accustomed to using statistics.

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FINLAND

Everything is founded on cooperation

Reija Helenius*

Statistics Finland invests in promoting the use of statistics in various ways. A key activity has for several years been the cooperation with educational institutions at different grades, from primary school to university. In addition to the ISLP poster competition, we have been involved in the European Statistics Olympics. Last time, Finland was the winner of the competition in both categories (upper secondary school and secondary school) in 2017/2018. The link below shows the fantastic videos produced by the winners:

Best in the secondary school category

Best in the upper secondary school category

The European Statistical Olympics 2018/2019 are again underway. We shall see how we will fare this time?

We cooperate actively with the University of Helsinki's science education, especially with the LUMA Centre Finland. The aim of the LUMA Centre Finland is to inspire and motivate children and youths into mathematics, science and technology through the latest methods and activities of science and technology education, support life-long learning of teachers working at all levels of education from early childhood to universities in the whole of Finland and strengthen the development of research-based teaching. Statistics Finland gives two grants annually, for the best phenomenon-based projects of young people in primary and secondary school. In cooperation with the University of Helsinki we are developing a web course on national accounts open to all students, for example.

Collaboration with the national Statistical Society is very important as well as with various teacher's organisations. We work together with teachers of mathematics, biology and geography and history. It is important to join resources, for efficient use of resources alone. In practice, cooperation means arrangement of seminars and workshops, taking part in teachers'

training days, support to communication and marketing by both parties, etc.

As the director of the ISLP, I have had the pleasure to follow the ways different countries promote statistical literacy. The poster competition has become more popular year by year and there seems to be yet another new record for the 2018/2019 competition. Young Finns are also strongly involved. With the ISLP, the poster technique has come to Finnish schools as a tool for statistics education.

For 15 years we have produced training materials for an eCourse in statistics (only in Finnish). The service is one of Statistics Finland's ten most popular web services. In addition to this, we produce the topical site Tieto&Trendit, which contains blogs and articles on interesting social topics written from a statistical perspective. We also arrange training for our customers, produce videos, infographics, share information on social media and our information specialists answer customers' questions on statistics serving by chat, email and telephone. We also produce targeted communication ranging from citizens to decision-makers.

Our experience shows that promoting statistical literacy is an endless task and there is work to be done. However, the working time spent on the task is not wasted, but has far-reaching effects on the development of our entire society and on effective and correct use of data.

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Marketing of competitions with Finland's Country Coordinator Jaana Kesti at the Finnish Science Centre Heureka.

Back to Contents

ITALY

Country report: Italy 2017 – 2018

Patrizia Collesi and Barbara Ascari*

In 2016, Istat celebrated their 90th anniversary. The historical exhibition "90 years connected with the country" (which took place in Rome, from October 2016 to February 2017) was one of the most relevant and successful events dedicated to the celebrations.

The exhibition highlighted how Istat's activities and the story of the country have been closely connected with each other since 1926, thanks to documentary material coming from Istat's historical Archive and the Central State Archive: photographs, multimedia documents, videos from the Istituto Luce and RAI (Italian State Television) archives, documentaries, infographics and visualizations.

In the period of the exhibition, Istat organised a workshop for 10-to-19-year-old students, divided into several parts and activities, and with several editions. The format was as follows: a guided tour of the exhibition, some statistical games on data visualisation, and two didactic videos on probability and on data visualisation. More than 900 students from 17 different schools from all over Italy took part in the repeated editions of the workshops.

For the Italian and European statistics day, Istat – in partnership with the Ministry of education and the Italian statistical society – organized classes, meetings and focus groups aimed at designing a questionnaire on the topic of culture and the interaction of people of different nationalities in Italian schools. The activities were carried out over four days, and the positive reactions indicated they were well received by students.

In 2017, Sessant'anni di Europa (Sixty years of Europe), a visual digital publication designed for the web was produced. It was intended to celebrate the 50th anniversary of the Rome Treaty and was released specially on the European and Italian Statistics Day (20 October 2017).

From June 2017 to May 2018, Istat was also busy organising the 8th edition of the Italian Statistics Olympics, in collaboration with the Italian Statistics Society (Sis). Istat also coordinated the participation of Italian teams in the first European Statistics Competition (ESC). The Italian Statistics Olympics qualified as the National phase of this ESC.

Nearly 2,400 students from 76 schools took part in the Italian Statistics Olympics. First, an individual phase took place, in which students were asked to answer multiple-choice statistical quizzes. This was followed by a team phase, in which student teams were asked to provide a written commentary on a particular set of statistics dealing with labour market or cultural habits.

The six winning teams from this phase participated in the ESC. Three teams participated in the 14-16 years old student category, and three in the 16-18 years old student category. The teams had to produce a video on the importance of official statistics. Two Italian teams were ranked in the top 10 list for best videos, out of more than 60 European teams taking part.

"Bimbi in Istat" (Kids in Istat) was a special event held on 30th of May 2018, in which Istat opened its doors to its employees' children with the aim of making them acquainted with their parents working environment. For

the youngest children Istat organized quizzes with prizes (both online and on-site), surveys on their favourite games and favourite foods, and reading stories with statistical information. For older children, a workshop on the value of statistics, in particular employment, was organised. This event was held at all Istat offices throughout Italy, and almost 700 children took part.

Furthermore, Istat has organised many study visits for 14-19 years old students to Istat's headquarters in Rome. As part of these visits, Istat experts gave presentations on Istat's history, labour market statistics, the transition from education to work, and social statistics.

Introductions of the new country coordinators of Italy

Patrizia Collesi*

I graduated in Foreign languages (English and German) and specialized in ESP (English for Special Purposes). I have worked for ten years in a Publishing House in charge for foreign rights and translations, then as a journalist for a news agency. Since 2002 I have been working in Istat (Istituto Nazionale di Statistica) with positions in different sectors: in the publishing sector as editor, in the press office as press officer and, as from May 2018, in the statistical literacy sector. In the mean time I've continued my activity in the translation sector at Istat and as a contract professor at university level with scientific English.

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Barbara Ascari**

I have a university degree in Foreign languages (English and German) and I have been working in Istat since 2008. Since 2009 I have been working on the dissemination of statistical literacy. With my colleagues I organize study visits in Istat and in schools. We have planned and developed 'ScuolaDiStatistica-Lab', an online statistical workroom with the aim of helping students and teachers in approaching statistics. We organize the Italian Statistics Olympics and we also give support to the ESC (European Statistics Competition).

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NETHERLANDS

Introduction of the new country coordinator of Netherlands

Harun Cetin*

Harun Cetin, graduated from the Faculty of Electrical Engineering Mathematics and Computer Science at Delft University of Technology (TUDelft), received his first Master of Science degree at the same university in the telecommunications track of Electrical Engineering. He also holds a Master of Science degree in Mathematics Education received at the University of Amsterdam (UVA) from the Faculty of Social and Behavioral Sciences. He cur-

rently is teaching pre-university mathematics (HAVO/VWO) at Montessori School Amsterdam (MSA). Meanwhile, he also carries out scientific research. His research proposal "Mathematics as a Complex Network" was honored by the Netherlands Organization of Scientific Research (NWO). The project; to use data-models from network science in order to quantify learning strategies, was executed in collaboration with TUDelft. It has attracted attention of the scientific community and encouragement to push ahead with a PhD. His research areas of interest are: Social Networks, Internet of Things, Self-organizing networks, Data-driven decision-making on networks, Data-driven education-technology, Adaptive/personalized learning.

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NORWAY

Report on ISLP from Statistics Norway

Camilla Stabell*

In 2017, Statistics Norway (SN) arranged 20 courses for high school students. The courses were standardized, lasted for two hours, and highlighted the importance and value of official statistics. Students also learned how to find and download statistics from our website. In addition, teachers could choose between three different topics that were investigated in more detail: equality; immigration; and employment.

In autumn 2017, SN participated in Science Week, arranged every year by the Research Council of Norway. The event was held in the central square in Oslo. Students, from primary school to high school, could visit stands from most of the foremost research communities. Students who visited the SN stand could participate in different kinds of competitions and get help finding statistics on the SN website. It was very successful, and students showed great interest.

In autumn 2018 we will publish a set of dedicated web pages targeting students in high school. The pages will cover topics relevant to subjects being studied by students.

Unfortunately Statistics Norway will not participate in the ISLP Poster Competition this year.

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PORTUGAL

Report on the Portuguese National Poster Competition 2016 / 2017

Maria Manuel Nascimento*

Maybe this is the result of recent changes in the pre-university level syllabus in 2013; But we still have only a few schools participating in the poster competition. Nevertheless, in 2016/2017 we have more participants: 95 in total, of which 40 came from elementary schools and 55 from professional school. This was due to the involvement of two professional school teachers that mobilized 55 students.

The eldest category was won by students Andreia Sousa and Beatriz Manha. They represented Artur Gonçalves School (in Torres Novas, in the center of Portugal). For teacher Alice Martins, this was her third participation in the competition and she was very supportive of her students.

The Nervir Vocational School (northeastern Portugal, Vila Real), also participated under the supervision of mathematics teachers, Helena Bogas and Olívia Pinto, in partnership with Integration Area teacher, Joana Mourão. Their work resulted in 20 posters competing in two categories: students born in 1997 and younger; and students born in 2000 and younger. The School organised a jury to elect the best poster by category. The judges were the President of NERVIR, the Councilor for Social Cohesion and Equality, and Culture and Health from Vila Real Municipal Council, and a Teacher from Department of Mathematics at the local university (UTAD). The poster for the category: students born in 2000 and younger, was chosen by the National Jury to represent Portugal in the ISLP Poster Competition 2016-2017. Even though they did not win the international competition, the students were very enthusiastic about their participation and the whole school was mobilized for the local competition, as the mathematics teacher reported.

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RUSSIA
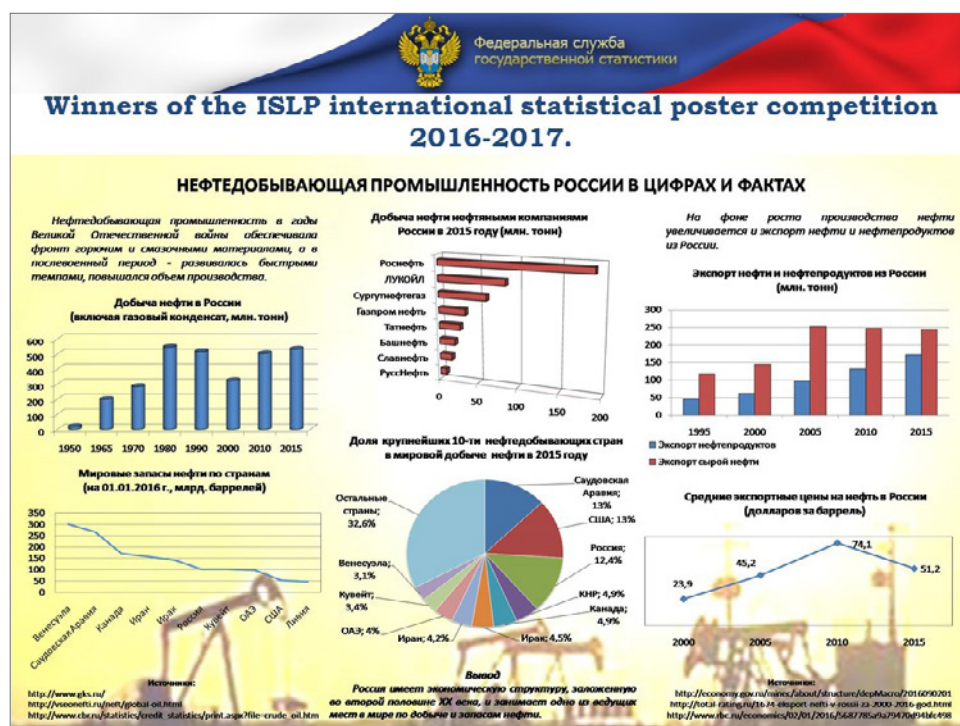
Rosstat's interactions with educational organizations and promotion of statistics among young people.

Michael Gundarev* and Sergei Nikitaev**

During 2017 – 2018, more than 200 schoolchildren, from 56 constituted entities of the Russian Federation, participated in the national stage of the International Statistical Literacy Project (ISLP). Altogether, Rosstat received 93 posters. They were reviewed and evaluated in accordance with the ISLP criteria.

As a result, the following works were recognized as the best: (pupils born in 1997 and earlier) – *"The Russian Oil Industry in Figures and Facts"* – prepared by students of "Secondary School No. 6" (Cheboksary, Chuvash Republic); (pupils born in 2000 and earlier) – *"History of Russia through from the search engine perspective"* – prepared by students of "Secondary School No. 112" in Perm. All national posters are available on the Rosstat intranet portal.

In 2018, under the auspices of the Russian Association of Statisticians the Russian Schools Competition on Statistics *"Trend"* (http://statkonkurs.ru/) was held. This was supported by Rosstat and the Ministry of Education and Science of the Russian Federation. More than 300 schoolchildren from across 26 regions of Russia took part. 10 teams competed in the final contest, attended

by Rosstat management. Winners and prizewinners of the online quiz were schoolchildren from Omsk, Yekaterinburg and the Republic of Buryatia. This event contributed to an improvement in statistical literacy and statistical culture among young people, as well as effective and mutually beneficial cooperation of statistical bodies with educational organizations in the field of career guidance and self-determination of pupils.

Another important field of work for Rosstat has been the interaction with universities, with the aim promoting statistics among students. Every year, Rosstat carries out a number of activities aimed at this goal. The most important is the International Statistical Olympiad for Students, conducted annually with the Plekhanov Russian University of Economics and other Russian universities. In this regard, representatives of 37 higher educational institutions and about 100 students took part in 2012 Olympiad. In the 2014-2015 Olympiad, 52 universities and 156 students participated. In the 2017-2018 International Statistical Olympiad for Students, 65 Russian and 2 foreign universities from the Republic of Azerbaijan and the Republic of Kazakhstan, a total 201 students, participated. The Olympiad is designed to stimulate the cognitive and creative activities of students, consolidate their theoretical knowledge and developed their practical skills in the analysis of socio-economic phenomena and processes by means of modern information technologies.

During the Olympiad, students demonstrated their competence in various fields of statistical analyses. The award ceremony takes place in a solemn atmosphere of

the Rosstat building, attended by senior management, jury members, management of Plekhanov Russian University of Economics and representatives of universities and media.

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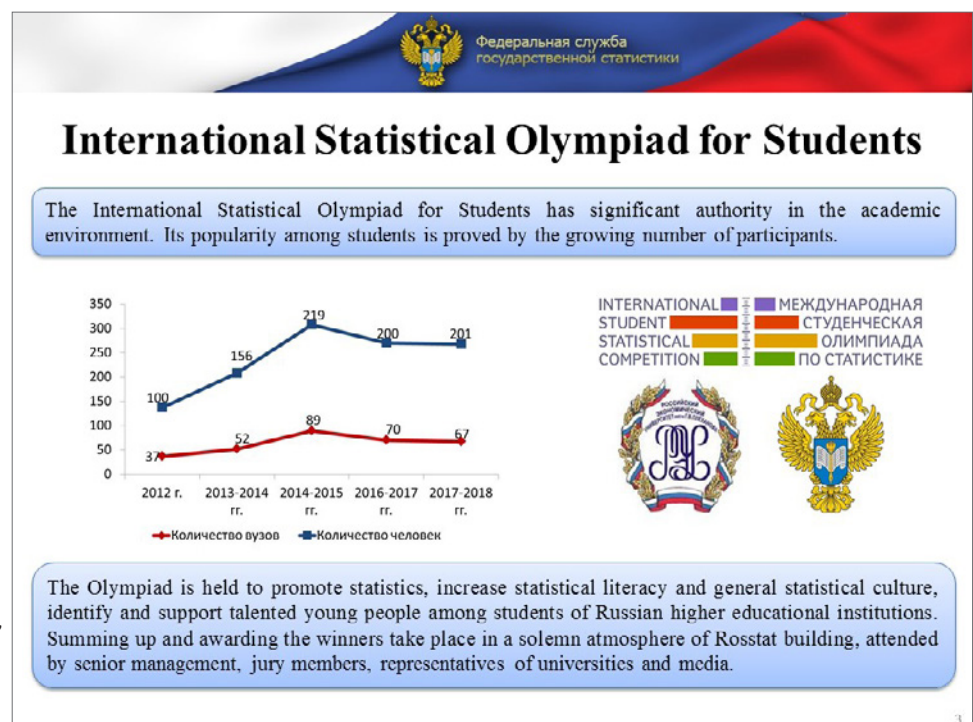
Report from Volgograd

Anastasia Barashova*

The statistics office of the Volgograd region, Volgogradstat, took part in the 2016–2017 ISLP. In Russia the competition was organized by the Russian Federal State Statistics Service Rosstat. 200 students participated from 56 Russian regions. In the Volgograd region many teams participated in the competition, but their posters did not make it further than the regional level. Hence, they did not take part in the federal competition. All

participants received a letter, thanking them for participating, and they were also invited on a tour of the Volgograd Regional Museum's statistics exhibition.

Participating in this competition brought about only positive experiences, and we want to participate in it again in the future.

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🇪🇸 **SPAIN**

Spanish participation in the ISLP Poster Competition

Adolfo Gálvez*

Source: www.ine.es

Since 2008, Spain has been participating internationally in activities that promote Statistical Literacy among students and teachers. In 2009, we participated in the First International Statistical Literacy Competition and won, together with South Africa, the Best ISLP Cooperative Project Award. In 2012–13 we received an "Honourable mention" in the ISLP Poster Competition.

In 2012, the University of Granada started a contest titled "Contest of the south, incubator of probes and experiments", which is currently organizing its seventh edition. The contest has generated increased interest from secondary school teachers and universities in other regions. This year 14 out of the 17 Spanish regions are participating. We envision that the winners of this contest will be our representatives in the ISLP Poster Competition 2018–2019.

Between 2013 and 2017, the Instituto National de Estadística (INE), la Facultad de Estudios Estadísticos (FEE) de la Universidad Complutense de Madrid y la Sociedad de Estadística e Investigación Operativa (SEIO), organized the Statistic Olympiad for Secondary School Students. This competition has its continuity in the "Competición Estadística Europea" (ESC). We congratulate the organizers for the success of the Statistic Olympiad, in which 1,700 students took part.

This year, Spain has also participated in the European Statistics Competition. This is a new competition organized by Eurostat and volunteering National Statistical Institutes, targeting secondary level students.

The six best teams, three from each category (Compulsory Secondary Education; Baccalaureate; Vocational Training Cycles), were our representatives in the European Statistics Competition. Students from CAT5 team of IES Santa Catalina de Alejandría de Jaen and Rubik-cubed of the School Lourdes of Valladolid were, respectively, the winners of both categories.

The European Statistics Competition was also a great success with 11,200 students disseminating the value of statistics. Our representatives of CAT5 were finalists

Students of CAT5 receiving the national price for the ESO category. Source: www.ine.es

Students of CATS receiving the national price for the Baccalaureate category. Source: www.ine.es

with their video in the category B, compulsory secondary school. You can find the video with this link: https://youtu.be/52ftV3pYrns

Congratulations to all the organizers, schools, teachers and of course, students who have taken part in the Spanish National Statistical Literacy activities!

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Introductions of the new country coordinators of Sweden

Hanan Innabi*

I am a senior lecturer of mathematics education in the Department of Pedagogical, Curricular and Professional Studies at Gothenburg University, and a member of the International Statistical Institute (ISI) and the International Association for Statistical Education (IASE). My research interest is related to teaching and learning statistics to enable students to use this knowledge in their daily life.

Before coming to Sweden, I was an associate professor at United Arab Emirates and Qatar Universities. During 14 years of working in higher education, I have taught statistics, research methods, and quantitative data analysis. I obtained my PhD from the University of Nottingham in England, where my thesis was in statistics education, studying students´ statistical reasoning process when they want to judge statistical generalizations in their daily life as critical thinkers.

My recent research work is in teaching statistics for sustainability. I am trying to address the idea that in order to learn to be sustainable, we need to give more serious attention to ideas related to "variation" in statistics. Using dynamic visual tools to investigate complex real issues is an important concern for statistics education. I believe that these issues must be within the United Nations' Sustainable Development Goals aimed at transforming the world by 2030 such as poverty, health, education, energy, and climate.

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Peter Nyström**

I am the Director of the Swedish National Center for Mathematics Education (NCM), located at Gothenburg University. I am also senior lecturer in mathematics education. NCM is commissioned by the Swedish government to coordinate, support, develop, carry out and follow up initiatives promoting Swedish mathematics education in pre-school, school and adult education, and to stimulate and disseminate research in mathematics education in Sweden. NCM has well developed channels to reach schools and mathematics teachers and experience of running project including competitions.

My research interests are primarily focused on assessment, in particular, large-scale assessment. I have been deeply involved in the TIMSS study, both nationally and internationally, in the development of instruments and in the analysis and interpretation of results. My recent research has been devoted to secondary analysis of data from TIMSS and PISA, focusing on student achievement in mathematics and physics.

Being coordinators of ISLP for Sweden is an excellent opportunity to connect our research interests to community service within an international framework. We are looking forward soon to seeing our students´ statistical products.

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COSTA RICA

Alfabetización estadística en Costa Rica

Edwin Chaves Esquivel*

En el 2012 se aprobó en Costa Rica un nuevo currículo educativo que vino a revolucionar la enseñanza de las Matemáticas en la educación primaria y secundaria. Entre los cambios más significativos de este nuevo currículo, se puede mencionar el papel de la Estadística y la Probabilidad como áreas disciplinares fundamentales, hecho que cambio drásticamente lo que se venía haciendo en el currículo previo, donde apenas se mencionaban.

Desde el punto de vista metodológico, se promueve una enseñanza basada en la resolución de problemas en contextos reales. En Estadística se pretende desarrollar habilidades generales tendientes al análisis de datos para favorecer una mejor comprensión del entorno, considerando procesos de recolección, clasificación, ordenamiento, presentación y resumen de datos, con el propósito de dar respuesta a problemas concretos. En este sentido se rescata el papel los datos, su significado y variabilidad como elementos claves para los análisis que se realizan en los salones de clase. Por otro lado, la probabilidad se enfoca como una herramienta para la modelación de situaciones aleatorias propias de la cotidianidad o de problemas lúdicos.

Para alcanzar la alfabetización estadística, el currículo promueve teóricamente un trabajo articulado que relaciona habilidades específicas y conocimientos básicos, con habilidades más generales y el desarrollo de procesos de pensamiento como: razonar, argumentar, plantear y resolver problemas, conectar, comunicar y representar, los cuales junto con la intervención de ciertos ejes curriculares, permiten alcanzar capacidades cognitivas superiores que potencien esta alfabetización.

La puesta en práctica de este currículo ha debido enfrentar una serie de retos, en primer lugar una pobre formación docente tanto en áreas disciplinares como en aspectos didácticos propios de la Estadística. En segundo lugar, el cambio de paradigma sobre la forma de enseñar Matemáticas en el país, ha ocasionado cierta resistencia entre diferentes actores del proceso educativo para que acepten el cambio y se involucren abiertamente en la implementación. Estos y otros elementos provocan que el proceso vaya desarrollándose en forma lenta; pero se espera que paulatinamente se alcancen mayores logros dirigidos a conseguir una adecuada alfabetización estadística en el país.

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ARGENTINA

Experiencias de difusión de la Cultura Estadística en Santa Fe (Argentina)

Liliana Tauber*

Desde 2017, hemos tenido algunos logros importantes, tanto por el apoyo de algunas instituciones, como por el interés que algunos colegas han manifestado en la Educación Estadística, es asi que hemos realizado las siguientes acciones:

Implementar una secuencia de enseñanza basada en un proyecto estocástico que ha sido diseñado específicamente para Nivel Primario. Dicha experiencia la he desarrollado junto a las Profesoras Silvana Santellán y Mónica Bentivegna y a tres grupos de alumnos de 11-12 años (7° grado), de la Escuela de Educación Primaria N° 6 Mariano Moreno, de la ciudad de Santa Fe (Argentina. Fig. 1 y 2). En dicha experiencia, brindamos formación a la Prof. Mónica y la acompañamos a lo largo de la implementación (septiembre a noviembre de 2017). Los estudiantes participaron activamente desarrollando el proyecto y tomando decisiones sobre los resúmenes estadísticos que debían utilizar para analizar los datos que obtenían y realizar sus propias conclusiones, las cuales pudieron contrastar a partir de la modelación de probabilidades. Todo ello permitió relacionar distintos elementos del Razonamiento Inferencial Informal.

De 2015 hasta julio de 2018, brindamos formación a alrededor de 3000 profesores de Nivel Secundario, a partir de un Módulo virtual de Enseñanza de la Probabilidad y la Estadística (EPE – Figura 3), dentro de la Especialización de Enseñanza de la Matemática, desde la plataforma virtual Nuestra Escuela del Ministerio de Educación de la Nación. En el mismo, los docentes
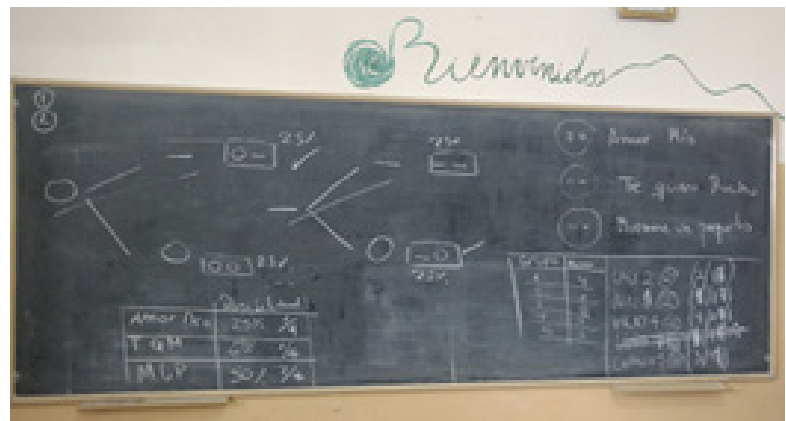
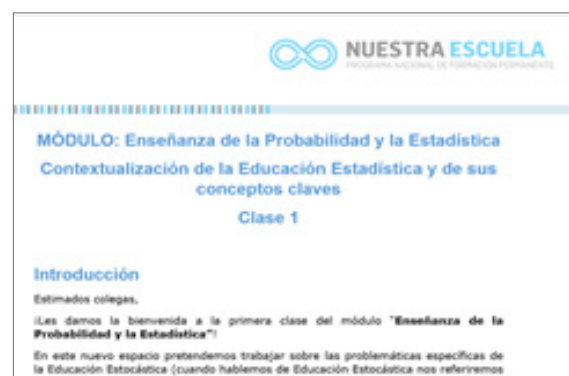Figuras 1 y 2. Representaciones de los alumnos

Figura 3. Página inicial del material del Módulo EPE

desarrollaron sus propios proyectos estadísticos para distintos cursos de Nivel Secundario (12 a 18 años). Para esta formación, he escrito un material virtual, el cual sirvió de bibliografía obligatoria para el cursado del Módulo EPE.

Figura 4. Profesores participando del curso de Posgrado

Figura 5. Grupo de Discusión de Educación Estadística en RELME 32

Desde febrero de 2018, la Facultad de Humanidades y Ciencias (FHUC) de la Universidad Nacional del Litoral, nos brindan el apoyo necesario para la difusión en nuestra región de la Competición Internacional de Alfabetización Estadística (Disponible en:

http://fhuc.unl.edu.ar/noticia/34553/competencia_internacional_de_alfabetizaci%C3%B3n_estad%C3%ADstica.html

https://www.unl.edu.ar/noticias/news/view/competencia_internacional_de_alfabetizaci%C3%B3n_estad%C3%ADstica_1#.Ws9N5ShuY2w

http://www.fhuc.unl.edu.ar/pages/noticia/36413/competencia_internacional_de_alfabetizaci%C3%B3n_estad%C3%ADstica_4.html).

Desde mayo y hasta agosto de 2018, en la Facultad de Humanidades y Ciencias (FHUC) hemos desarrollado el curso de posgrado: "El problema del sentido en Probabilidad y Estadística", destinado a profesores que ejercen en el Nivel Secundario, teniendo una gran convocatoria de asistentes quienes elaboraron proyectos estadísticos para el aula (Mostramos distintos momentos del curso en Fig. 4).

En julio de 2018, el Grupo de Discusión de Educación Estadística en RELME 32 (Reunión Latinoamericana de Matemática Educativa), se reunió en Medellín (Colombia) por quinto año consecutivo en el marco del mencionado congreso. En esta oportunidad se realizó la discusión en torno a la presentación de propuestas de experiencias de enseñanza en probabilidad y estadística. En el mismo participaron profesores, estudiantes e investigadores en el área de: Argentina, Brasil, Chile, Colombia, México y Perú (Fig. 5).

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¡Gracias a todos por el apoyo!

BOLIVIA

"Lanzamiento Oficial de la Competencia Boliviana de Posters Estadísticos"

Alvaro Chirino Gutierrez*

Avanzando hacia la Alfabetización Estadística!!!

Paul Villarroel (Director Aru), Santiago Farjat (Director INE) y Al-varo Chirino (Coordinador Nacional ISLP)

Con el propósito de promover acciones concretas para impulsar la alfabetización estadística en Bolivia, el Instituto Nacional de Estadística (INE) y la Fundación ARU en cooperación mutua, realizarón el lanzamiento oficial de la "Primera Competencia Boliviana de Posters Estadísticos 2018-2019". En esta su primera versión la competencia pretende fomentar el uso, análisis, interpretación y comunicación de datos e información estadística, en jó-venes y adolescentes de todo el país.

Lanzamiento de la Competencia

 El Director Ejecutivo del INE Santiago Farjat (izquierda) junto a Paul Villarroel Director Ejecutivo de Fundación ARU, Alvaro Chi-rino Coordinador Nacional de ISLP, Erika Nogales, Representante de Banco Mundial, Juan Castillo representante de FAO y Carlos Gutiérrez especialista UNICEF

El evento de lanzamiento tuvo lugar el jueves 5 de julio de 2018, en el auditorio "Jorge Félix Ballivian" del INE, en el evento también participaron representantes de las instituciones patrocinadoras de la Competencia, Banco Mundial, Organización de las Naciones Unidas para la Alimentación y la Agricultura (FAO), el Fondo de las Naciones Unidas para la Infancia (UNICEF), Carrera de Estadística–UMSA y Universidad Privada de Santa Cruz de la Sierra–UPSA, como también medios de comunica-ción.

El valor de la Competencia en las Estadísticas Bolivianas

El Director Ejecutivo del INE Santiago Farjat

El Director General Ejecutivo del INE, Santiago Far-jat Bascón, destacó la relevancia que tiene la estadística en la sociedad y como esta información sirve al Estado Plurinacional para la toma de decisiones y la evaluación de las políticas públicas, en tanto que para las universi-dades es un insumo para la investigación; "Celebro los esfuerzos conjuntos que realizamos para promover cultu-ra estadística y ayudar a las sociedades desde muy corta edad, a empaparse de lo que es la estadística" remarcó. Añadió que los objetivos primordiales de este concurso, es fortalecer las capacidades para interpretar y evaluar críticamente la información estadística "a la cual nos encontramos diariamente expuestos" y mejorar las capa-cidades para la discusión, razonamiento estadístico y la comunicación comprensible de los datos.

"Queremos generar un mayor grado de conocimiento e interpretación en los colegios y universidades, mejorar las carreras de estadística, y así incentivar a los alumnos a estudiar esta ciencia" enfatizó la autoridad del INE, a tiempo de indicar que esta iniciativa permitirá a los estudiantes de colegio y universidad, comunicar de manera más simple y amigable la información estadística.

Proceso de involucramiento

Auditorio Jorge Félix Ballivián, lugar del lanzamiento

Con la participación de instituciones estatales y entidades públicas que desarrollan estadísticas en Bolivia, más la participación de instituciones patrocinadoras de la competencia, se hace pública la invitación a estudiantes, adolescentes y jóvenes de toda Bolivia a través de medios de comunicación, con la conferencia de prensa realizada después del evento inaugural. En el evento se dio a cono-cer las características de la competencia, los beneficios y el cronograma existente.

Inscripciones abiertas

La "Competencia Boliviana de Posters Estadísticos 2018-2019" esta abierta en sus tres categorías:

— **Bernoulli** (Adolescentes nacidos en los años 2003, 2004 y 2005),
— **Poisson** (Adolescentes y jóvenes nacidos en los años 2000, 2001 y 2002) y
— **Gauss** (Estudiantes de pregrado de universidades públicas o privadas sin límite de edad),

Pueden participar en equipos de 2 a 5 estudiantes mas el apoyo de un tutor, las inscripciones y envío de los posters pueden realizarse mediante la página web (https://islp-bolivia.github.io/) de la competen-cia o en las oficinas regionales del INE.

Los premios!!!

Serán premiados los 3 primeros lugares en cada cate-goría, los premios consisten en:

— **Primer lugar:** Pack educativo I + Material de pa-trocinadores + Certificado de participación.
— **Segundo lugar:** Pack educativo II + Material de patrocinadores + Certificado de participación.
— **Tercer lugar:** Pack educativo III + Certificado de participación.

LOS PRIMEROS LUGARES EN CADA CATEGORÍA PA-SARAN A REPRESENTAR A BOLIVIA EN LA COMPETEN-CIA INTERNACIONAL. Los ganadores de la competencia internacional se anunciarán y los posters se mostrarán en el 62 Congreso Mundial de Estadísticas del ISI en Kuala Lumpur, Malasia (agosto de 2019).

Los premios para las tres categorías

Fechas importantes

JUNIO, 2018–ENERO, 2019: Periodo de envió y registro del póster

— 14 DE ENERO, 2019: Cierre de registro
— 15 DE ENERO 2019- 20 DE MARZO 2019: Evalua-ción de póster
— MARZO, 2019: Premiación Nacional

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CHILE

Introduction of the new country coordinator of Chile

Hugo Alvarado Martínez*

Hugo Alvarado Martínez es Profesor de Matemáticas de la Pontificia Universidad Católica de Chile, Magíster en Estadística por la Universidad de Concepción, Doctor en Didáctica de la Matemática por la Universidad de Granada, España. Tesis titulada Significados institucionales y personales del teorema central del límite en la enseñanza de estadística en ingeniería., Directora Carmen Batanero Bernabeu. Actualmente es Profesor Asociado del Departamento de Matemática y Física Aplicadas, Facultad de Ingeniería de la Universidad Católica de la Santísima Concepción, con 22 años de experiencia docente. Profesor Asociado del Centro de Investigación en Educación y Desarrollo CIEDE-UCSC. Integrante de la Red Latinoamericana de Investigación en Educación Estadística RELIEE. Coordinador de Workshops de Probabilidad y Estadística UCSC 2016-2018 dirigido a estudiantes y profesores de matemática. Coordinador académico del programa Magíster en Didáctica de la Matemática UCSC 2014-2015.

Ha participado en diversos encuentros de Educación Matemática en Latinoamérica RELME, Simposio Español de Investigación en Educación Matemática SEIEM, proyectos de apoyo a la docencia y proyectos de investigación FONDECYT, evaluador de proyectos y artículos científicos, director de tesis de postgrado en Educación Estadística.

Principales áreas de interés son: Didáctica de la Probabilidad y Estadística, Formación de profesores, Educación en Ingeniería.

Nuestro interés como profesor investigador es promover el sentido estadístico y su desarrollo en diferentes niveles educativos. La participación activa de jóvenes en la cuarta versión del Workshop realizado en abril 2018 deja en evidencia la necesidad de proponer una enseñanza que relacione la comprensión teórica y práctica de los significados de las ideas fundamentales de la probabilidad y estadística.

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33 Foro Nacional de Estadística (FNE) y 13 Congreso Latinoamericano de Sociedades de Estadística (CLATSE)

DEL 01 AL 05 DE OCTUBRE, 2018

Durante los días del 1 al 5 de octubre se realizó en Guadalajara, México, el 33 Foro Nacional de Estadística (FNE) y 13 Congreso Latinoamericano de Sociedades de Estadística (CLATSE).

En el mismo se realizó el anuncio de los ganadores del Concurso Latinoamericano de Póster como también el segundo y tercer puesto de cada categoría y país. Organizado por el programa de Alfabetización Estadística Internacional y coordinado por Mg. Adriana D´Amelio. Con este concurso se pretendía promover la participación latinoamericana en el concurso de póster internacional del ISLP. Los ganadores de los países intervinientes que fueron Argentina, Chile, Brasil, Ecuador y Colombia, pasan directamente a la final que se realizará en el Congreso Mundial de Estadística a realizarse en agosto del 2019 en Kuala Lumpur, Malasia. El objetivo del concurso Latinoamericano de póster se cumplió ampliamente ya que de 34 participantes que hubo en el concurso anterior (2016-2017) pasaron a participar en los países intervinientes más de 600 estudiantes. La participación fue en los niveles de 12 a 15 años, de 15 a 18 años y estudiantes universitarios.

Evolución en la participación

	2016 – 2017	2018 – 2019
Argentina	0	107
Brasil	15	22
Chile	0	41
Colombia	0	331
Ecuador	30	150+

Total de participantes 2018-2019 = 651 estudiantes

Miembro de la Executiva ISLP y coordinadora de la Competencia Latinoamericana de Póster, Adriana D'Amelio, dio una presentación sobre el ISLP en CLATSE.

La coordinadora de Brasil, Mauren Porciúncula y Adriana D'Amelio anunciaron los ganadores del Concurso Latinoamericano de Póster en CLATSE.

Resumen de temas

	País	Tema del Póster
12–15	Argentina	¿Estamos informados sobre la educación vial?
	Brasil	Consumo de álcool em uma escola municipal do Rio de Janeiro
	Colombia	La televisión y los adolescentes
	Argentina	Una mirada hacia la realidad adolescente
	Brasil	Suicídio na adolescência
15-18	Chile	Factores que inciden en la cultura de la vida sana y la alimentación
	Colombia	Un Receso Sano
	Ecuador	Dificultades que vulneran a niños y adolescentes
	Argentina	Concentración de corticosterona a diferentes temperaturas y sus consecuencias sobre el sistema inmune en Caiman latirostris
Universitario	Brasil	Você sabe como se elegeum deputado federal no Brasil?
	Chile	Análisis estadístico de la contaminación por material particulado en la comuna de Taclahuano Chile.

33 National Statistical Forum (FNE) and 13 Latin American Conference of Statistical Societies (CLATSE)

FROM 01 TO 05 OF OCTOBER, 2018

The 33rd National Statistical Forum of Mexico (FNE) and the 13th Latin American Congress of Statistical Societies (CLATSE) took place in Guadalajara, Mexico from 1st to 5th of October.

There, the winners of the Latin American Poster Competition (CLATSE) were announced as well as those placed second and third in each category and country. This event was organized by the International Statistical Literacy Project (ISLP) and coordinated by Ms. Adriana D´Amelio. The purpose of this competition was to foster the participation from Latin American countries in the ISLP International Poster Competition. The participating countries were Argentina, Chile, Brazil, Ecuador and Colombia. The posters of the winners announced at CLATSE will continue directly to the international final, which will take place at the World Statistics Congress in Kuala Lumpur, Malaysia next August (2019). The objectives of the Latin American Poster Competition were achieved: an increase from 45 participants in the previous competition (2016-2017) to over 650 students across five countries. There were three categories of participation: pupils aged 12 to 15; 15 to 18; and university students.

Evolution of participation

	2016 – 2017	2018 – 2019
Argentina	0	107
Brazil	15	22
Chile	0	41
Colombia	0	331
Ecuador	30	150

Total number of participating students in 2018–2019 = 651

Member of the ISLP Executive and coordinator of the Latin American Poster Competition, Adriana D'Amelio, held a presentation about the ISLP at CLATSE.


The country coordinator of Brazil, Mauren Porciúncula and Adriana D'Amelio announced the winners of the Latin American Poster Competition at CLATSE.

Summary of Topics

	Country	Poster topic
	Argentina	Are we informed about traffic education?
	Brazil	Alcohol consumption in a municipal school in Rio de Janeiro
12–15	Colombia	Television and youth
	Argentina	A look into the realities of youth
	Brazil	Adolescent suicide
	Chile	Factors that affect healthy lives and nutrition culture
	Colombia	A healthy break
15–18	Ecuador	Difficulties that negatively impact children and adolescence
	Argentina	Concentration of corticosterone at different temperatures and consequences on the immune system of the broad-snouted caiman
University	Brazil	Do you know how a federal deputy is elected in Brazil?
	Chile	A statistical analysis of particulate matter contamination in the commune of Taclahuano, Chile
	Chile	Análisis estadístico de la contaminación por material particulado en la comuna de Taclahuano Chile.

🇦🇺 **AUSTRALIA**
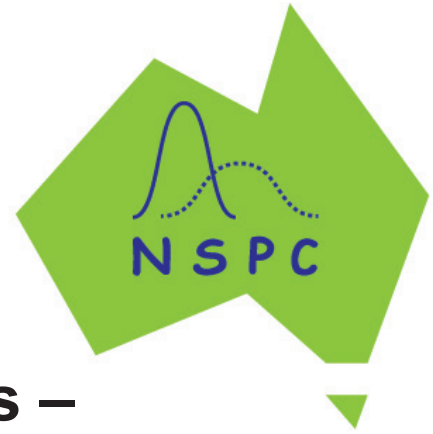
Australia delivers on statistics – National Schools Poster Competition

Peter Howley*

Greetings from Australia – as we eagerly await the sunshine of Summer to arrive, and with it the 2018 submissions of inspiring and creative investigations from teams of school students nationally!

The National Schools Poster Competition (NSPC) continues to flourish in Australia. Following its pilot delivery in the Hunter Region in 2014 realising submissions from some 86 students, it has grown annually and last year received submissions from 955 students nationally, with many more engaging in the activity annually.

As Tukey famously noted, statisticians get to play in everyone's backyard. Unfortunately, the significance of this observation, and the broader appeal of statistics known to practitioners, is largely lost on school students due to the way students are introduced to and informed about statistics. Statistics is often taught in schools quite mechanically and in isolated pieces, lacking contextual appeal, meaning or inspiration.

Practicing statisticians have a context, and a problem to solve, and have chosen their environment rather than having it thrust upon them. Allowing students to take the lead, determine the context and self-diagnose are powerful motivators.

In Australia, the NSPC helps provide students the answer to the perennial question *'Why am I learning this?'*. The focus upon not only an investigation but one which students themselves identify, due to its significance to them, helps to enthuse students and reignite that inquiring mind. I invite you to consider the 6-minute video of student and teacher testimonials available at https://vimeo.com/215608267.

The Statistical Society of Australia (SSA) has also been appreciative of this endeavour raising the profile of statistics nationally, recognising my stewardship of this activity in Australia by bestowing upon me the SSA's 2018 Service Award at the recent ISCB/ASC2018, for which I was greatly surprised and appreciative.

The international interest in the school-based initiative was evident in the enthusiastic audiences attending my presentations about this and other aligned activities at ICOTS10, and the joint ISCB/ASC2018 – the latter's presentation entitled *'Inspiring future statisticians!...or at least making the statistics-haters outliers'*. The Statistical Education Research Journal will also be assisting to advance such endeavours with a special edition in 2019 *'Building future generations of statisticians'*, https://isi-web.org/images/news/2017-10SERJ.pdf that will share the many and diverse international initiatives supporting increased connections of community, schools and industry with statistics.

As part of the support network established in Australia, videos have been created that demonstrate statistics in practice as well as how the NSPC activity is delivered. You may like to consider using any of the following in your countries, and letting me know what you and others think of them:

— Thirteen 4-minute videos of industry and career experts outlining their experiences and exemplifying the importance and application of statistics in practice – presenters include representatives from QANTAS, NASA, Hunter Valley Coal Chain, NSW Health, and many more – see https://www.ssaipostercomp.info/resources.html.
— A 6-minute video of how to deliver the NSPC activity in a classroom–https://vimeo.com/213766483.
— A short and catchy 1-minute overview video of the NSPC, from project inspiration to poster submission–https://vimeo.com/213766769.

Back to Contents

Further, as part of the continuing endeavour to assist teachers to best support the future workforce, an online Graduate Certificate in Integrated STEM program has been created. Should you know teachers, managers or members of the broader workforce who are looking to develop skills in STEM-based investigations; analysis; systems thinking, design and improvement; emerging technologies; entrepreneurship; and leveraging expertise to realise STEM synergies then perhaps let them know about this program – see https://www.newcastle. edu.au/degrees/graduate-certificate-integrated-science-technology-engineering-mathematics for details.

With submissions for the competition due by 10 November we are looking forward to many interesting and inspiring subject areas and reports coming again this year.

Thanks also goes to our national sponsors and supporters, RDA Hunter ME Program, The University of Newcastle and Statistical Society of Australia.

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Back to Contents

NEW ZEALAND

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Two Statistical Literacy activities were promoted in New Zealand in the second half of 2018.

Emma Mawby*

The first dealt with Literacy requirements for University Entrance, in the context of Statistics.

This document contains the advice given to the Ministry of Education by the New Zealand Statistical Association Education Committee (NZSA EdCom) about the Literacy requirements for University Entrance in New Zealand. It addresses the tensions between the need of University students to develop scientific communication skills and the size and accessibility of the current Senior High School Statistics curriculum and qualifications. The full statement is here:

http://new.censusatschool.org.nz/resource/litera-cy-for-university-entrance-views-from-nzsa-educa-tion-committee/

The second is the New Zealand entries to the 2018-19 ISLP poster competition.

Entrants for the New Zealand ISLP poster competition have been selected and are currently working on their posters. This year, students who won statistics prizes in the New Zealand Regional Science and Technology Fairs were invited to develop the statistical content of their posters further to produce a poster that meets the criteria for the ISLP poster competition.

Three groups of students are currently working on posters for the ISLP poster competition. They will receive advice and review from Digital Publishing Consultants at Stats NZ. Their poster topics include: "Tradescantia vs natives"; "Who's laughing now? Does age affect the way people recognise fake and real laughter?"; and "Who is the odd one out?". The posters will be completed and submitted in February 2019.

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A Statistics case study

John Harraway*

As well as teaching Statistics at the University of Otago I have been fortunate to be involved in statistical collaborations with colleagues in many departments. These collaborations generate data usable in teaching, with students finding such actual and recent case studies motivational. One project this year involved spinner dolphins along the Red Sea coast of Egypt and the impact of tourism on these marine mammals in their resting habitat. I helped with the statistical analysis for a PhD student in our Department of Zoology who spent several years in the field in Egypt collecting data on dolphin behaviour and recording the intensity and duration of interactions of tourists on the dolphins. The spinner dolphins feed at night in the Red Sea and return to rest during the day in lagoons along the Red Sea coast of Egypt where there is considerable impact from tourists wanting to see and swim with these animals. The hypothesis is that unrestricted tourist activity impacts negatively on the well-being of the dolphins during daylight rest hours.

Three lagoons where fieldwork was carried out were at Samadai in the North of the Red Sea where tourism was regulated, Qubbar'Isa in the South near the Sudanese border where no tourism was permitted for security reasons, and midway between at Satayah where tourism was unregulated. The lagoon in the South provided an excellent control site allowing comparison of the effects of both regulated and unregulated tourism with a control. The three sites were far apart with no evidence of interaction between three distinct populations with the research establishing that the same dolphins returned to each lagoon.

The intensity of the tourism at each hour of the day was measured as well as the transitions in dolphin behaviour during the successive periods of the day, namely: cohesion of a dolphin pod, tight or loose, pod formation, single or multiple, and aerial activity states, inactive or active. Fumagalli et.al.(2018) report that the log linear models of dolphin behaviour confirm dolphin behaviour differed among the study sites. Compared with the control site reactions to boats and swimmers at the two tourism sites showed dolphin rest was disrupted especially in the middle of the day at Sataya where dolphin tourism was unregulated. The protection measures at Samadai reduced the level of disturbance.

Marine mammal tourism is popular and expanding around the world and this study provides important evidence for regulated tourism to avoid detrimental effects on cetacean populations.

Reference

Fumagalli M., Cesario A.,Costa M., Harraway J., Notarbartolo di Sciara G., Slooten E. April 2018 Behavioural responses of spinner dolphins to human interactions. *Royal Society Open Science 5:* http://dx.doi.org/10.1098/rsos.172044

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Photo: M. Costa/HEPCA

ISI Tokyo Memorial Fund

Yasuto Yoshizoe*

Members of the Japan Statistical Society (JSS), and the Committee members of ISI Tokyo Memorial Fund were very much pleased to hear that our donation to ICOTS10 was warmly accepted. We are delighted to have helped some participants to attend the ICOTS10 held in Kyoto in July 2018.

When this fund was transferred to JSS several years ago, I worked with the officials of the Japanese government which was responsible for the original fund, partly because I was an erstwhile president of JSS, as well as a board member of the original fund.

Here, I would like to describe why and how we donated a portion of our fund to ICOTS10.

Short History of JSS and its Relation to ISI

JSS was founded in April 1931 as an academic society. Before its foundation, Japanese intellectuals started to learn modern statistical concepts during the transition period from the Tokugawa era to before Meiji era, when modern political and social system were emerging. After the Meiji Restoration, adaptation of statistics was vital for Japan who just started the long way of modernizing society and economy. The modern population census started in 1920, followed by successive censuses every five years. Those who worked for population censuses promoted invitation of ISI Sessions in 1930 when the third population census was to be conducted.

When the 19th ISI Sessions took place in Tokyo in 1930, about 30 Japanese people attended the meeting. The majority of the Japanese attendants represented official statisticians, and only a few well-established academic researchers were invited. This occasion made young Japanese researchers recognize the importance of establishing an academic society in the field of statistics. It is not a coincidence that JSS was founded in 1931, just after the ISI Sessions in Tokyo.

When the 32nd ISI Sessions took place in Tokyo for the second time in 1960, many academic researchers attended ISI. Naturally, most of the attendants were members of JSS. This was a big difference compared with the first ISI Tokyo in 1931. The ISI Sessions took place for a third time in Tokyo in 1987. This time, the Japanese government and JSS played the central role in the invitation process.

The ISI Tokyo Memorial Fund

This fund was established after the 46th ISI Session held in Tokyo in 1987. Some academic societies related to statistics worked together with a support by the Japanese government to raise funds to host ISI Tokyo. Fortunately, the Japanese economy was strong enough for many companies to make a financial support, and after 1987 ISI Tokyo was successfully run, as we hoped, there remained some residual resources.

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Back to Contents

To use the resources effectively, the Steering Committee of ISI Tokyo decided to establish a fund to provide future ISI session participants with financial support for the purpose of encouraging ISI activities and promoting development of statistics.

The original secretariat of the fund was the Institute of Statistical Research (ISR), one of the largest incorporated foundations related to statistics, whose councilor consisted of the Bank of Japan, Keidanren (a group of leading companies), and representatives of other important organizations. I happened to be a member of the board for some periods.

In 2013, when ISR was about to close its long history, the supervising government officials asked me if it was possible to transfer the memorial fund to JSS. Naturally, we worked out a new way of contributing to ISI activities, and after some negotiations among ISR, government and JSS, the members of a new steering committee of the ISI Tokyo Memorial Fund were selected from members of JSS and supervising government officials.

It took some time to reach a consensus on what is the most appropriate way of using the Memorial Fund, in these days of low interest rates. Our conclusion was to divide the fund for several different purposes; one of them was the donation to ICOTS10 which was to be held in Kyoto in 2018 to support participants from developing countries.

At ICOTS10, we were pleased to find some figures, such as ISI President Helen MacGillivray and IASE President Gail Burrill, acknowledging the ISI Tokyo Memorial Fund.

We hope that our support played some role to building capacity in the field and leadership skills for these young people who would otherwise not have had this opportunity.

We, JSS, wish to thank the attendants and organizers of ICOTS and the International Statistical Literacy Project (ISLP) who cooperated with us to make our contribution possible.

As we believe that ISI activities should attract more interest among young researchers in Japan, we just introduced `the ISI Tokyo Memorial Award' including some financial support for young members of JSS, which will help them to attend ISI WSC 2019 in Kuala Lumpur. This is another enlightened use of our fund.

Further, we decided to support an ISI satellite meeting, Data Science, Statistics and Visualization, DSSV 2019, in a similar way.

We sincerely wish to keep contributing to ISI activities through the memorial fund.

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ProCivicStat Rescources

Joachim Engel*

Documents and materials developed by ProCivicStat, a strategic partnership of six Universities in five countries with funds from the Erasmus program of the European Union, are now accessible through the IASE/ISLP website.

Extending the concept of statistical literacy, ProCivicStat has conceptualized a sub-discipline called Civic Statistics, which focuses on understanding data about society i.e. data that inform us about the social and economic well-being and the realization of our civil rights in society.

The ProCivicStat report is entitled *"Engaging Civic Statistics: A Call for Action and Recommendations."* This report presents six recommendations that aim to promote the field of civic statistics and improve the critical understanding of statistics and quantitative evidence relevant to burning social issues which are provided to the public by the media, official statistics offices, and other data providers.

Beside the ProCivicStat report, other resources, now available, include:

— a database of teaching and learning materials comprising 41 units for innovative teaching practices in high school and universities;
— a conceptual framework mapping the skills and knowledge required to understand statistics about society; and
— a review of dynamic visualization tools, datasets, class syllabi and workshop materials.

All materials are now available at
www.iase-web.org/islp/pcs

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Back to Contents

International Statistical Poster Competition

The Poster Competition continues until March 2019. Lower, upper secondary, and bachelor-level university students around the world are invited to create statistical posters in teams. Great prizes included! For more information visit the ISLP website.

The Best Cooperative Project Award

The award in recognition of outstanding, innovative, and influential statistical literacy projects is on. Proposals should be sent to the ISLP Deputy Director, Steve MacFeely by the end of April 2019. The winning project will receive 1000 euros! For more information visit the ISLP website.