Newsletter of
the International
Statistical Literacy Project

1 (17) October 2025

EDITORIAL

Volunteers – The Heart of the ISLP Project

Reija Helenius*

At the core of the ISLP project is its invaluable network of volunteers. Over 150 country representatives operate in around 90 countries, promoting statistical literacy and data skills, which are essential foundations for democracy, decision-making, and sustainable development. These volunteers not only teach how to use statistics, but also highlight why reliable information is vital for society.

In an era of disinformation, ISLP volunteers are on the front lines defending the use of trustworthy data. They educate, inspire, and support young people and citizens in understanding what numbers truly reveal, and what they don't. They help people produce meaningful information and develop critical literacy: the ability to distinguish reliable data from misleading claims.

The ISLP Executive Team and Advisory Board also operate on a volunteer basis, as do many others who support the project, such as the juries of our poster competitions. The 2024–2025 ISLP Poster Competition is one of our latest achievements, with over 20,000 young participants from around the world.

Our newest initiative, International Day of Statistical Literacy, was launched last year and is now held annually. This year, it will be celebrated on 25 November 2025. You'll find more details about the event in this newsletter.

While volunteer work is the backbone of our operations, maintaining and developing a global network also requires financial support. Sponsors like JMP help make it possible to award prizes for the international poster competition. Would you be interested in becoming a sponsor or helping us connect with potential supporters?

A heartfelt thank you to all members of our network for your outstanding commitment and collaboration. ISLP is part of the knowledge ecosystem. It is a community that believes a better world can be built through statistical literacy.

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Guidelines for submitting articles

Format of the article
Please send the articles in .doc, .docx or .odt format.

Length of the article
Please aim to keep your article in 1-4 pages of length. However, you are welcome to offer articles that are shorter or longer. Only capitalise the first word of a headline, not each word.

Images of the article
Even if the images are embedded in the article, please also send them as separate files. It is easier to edit and crop images for the magazine.

Special considerations
After the title of your article, please include the author name, followed by an asterisk*.

At the bottom of the article, please include an asterisk and the author affiliation and e-mail address.

For any questions, please contact islp.coordination(at)gmail.com.

Thank you!

ARTICLES

ACTIVITIES

A MESSAGE FROM OUR SPONSORS

ISLP

New article from the ISLP project – definitely worth checking out!

Global challenges and perspectives in statistical literacy: An analysis of ISLP activities and insights from country coordinators and NSO resources

The article *"Global challenges and perspectives in statistical literacy"* by Elisa Falck, Pedro Campos, Adriana D'Amelio, and Reija Helenius has been published in the Statistical Journal of the IAOS. The article is based on the work of the International Statistical Literacy Project (ISLP), which aims to support, develop, and engage in the promotion of statistical literacy worldwide.

The article discusses global challenges in advancing statistical literacy. It highlights that decision-makers often underestimate the importance of statistical literacy, and citizens may not fully recognize its relevance in everyday life—for example, when assessing the accuracy of information. Despite these challenges, efforts to promote statistical literacy are being made globally, including within the framework of the UN's Sustainable Development Goal on education.

The study also analyses the types of resources and guides that national statistical offices have developed on their websites to promote statistical literacy and data usage skills. In addition, it explores how the project's country coordinators work to advance statistical literacy. The coordinators who participated in the survey represented various parts of the world, including Europe, Asia, Africa, North America, South America, and Oceania.

News update from ISLP's partner GIST

The Global Network of Institutions for Statistical Training (GIST) is a network of international and regional training institutions, working together to build sustainable statistical capacities through efficient, effective, and harmonized delivery of training.

One of its task teams works with "Statistical Literacy in the context of the 2030 Agenda". The task team has produced a statistical literacy inventory, which is published in GIST website: https://unstats.un.org/gist/statistical-literacy/

If you know about initiatives of statistical literacy, please contact Bianca Walsh or Pedro Campos (co-leads of that task team): bianca.walsh@ibge.gov.br; pedro.campos@ine.pt

They will also be glad to help you fill in the templates. The initiatives will be published on this website with an international outreach.

International Day of Statistical Literacy – Save the Date November 25th

Subsequent to the first-ever International Day of Statistical Literacy (IDSL 2024) which was a highly successful online conference organized last year by ISLP, we are delighted to announce the launch of the second International Day of Statistical Literacy which will be held on **Tuesday, 25th November 2025 from 10:00 am to 6:00 pm UTC.**

The 8-hour-long online conference will include invited talks by renowned experts along with a variety of sessions organized by ISLP country coordinators not only in the English language but also in French, Spanish and Portuguese.

Registration is free. We invite members of the global statistical community to participate enthusiastically in order to make the conference an even bigger success than last year. Along with your own participation, it will be great that you can encourage your colleagues, acquaintances and students to attend the conference. It will be a horizon-widening experience for many and will impinge the importance of statistical literacy in today's data-driven world on their minds.

News update from new ISLP's partner NNN

Amidst a world awash in data and numbers–where the ability and disposition to engage with quantitative information matters for well-being, work, and democracy–the National Numeracy Network strives to promote and sustain conversation about numeracy across all levels and disciplines. While we are officially located in the U.S., we have members from across the globe.

Ways to get involved:
Sign up for our email group
Check out our journal: *Numeracy*
Participate in our annual conference

Questions?
Contact Luke Tunstall at stunstal@trinity.edu.

 Pakistan

IDWSDS 2025: Thriving in Your Environment

We are pleased to provide some updates about the 4th annual International Day of Women in Statistics and Data Science conference (IDWSDS 2025) on the 14th of October, 2025. These will help you prepare for your conference submission and attendance and are great to share with others who may be interested.

Keynote Speakers–The conference keynote speakers represent the variety of topic areas, disciplines, and subject areas where women are working in statistics and data science. They are:

- Dianne Cook, Monash University
- Sherlene Enriquez-Savery, University of Belize
- Krista Fischer, University of Tartu
- Bonnie Ghosh-Dastidar, RAND, ASA Past President
- Amanda Golbeck, University of Arkansas for Medical Sciences
- Che Smith, Netflix

These excellent speakers will have sessions throughout the conference day and will be highlighted in our program book and conference app.

Conference App & Registration–This year we will have a conference app! This will make it easier to find the session you want to attend, facilitate networking opportunities, and more! Register now to secure your spot at IDWSDS 2025! Registration is now open, and we encourage you to sign up early. Join us virtually from anywhere in the world as we celebrate the achievements of women in statistics and data science. The best part? Registration is entirely free! Save your (virtual) seat now by visiting our registration page.

Invited Session Proposals: We encourage you to contribute to the conference by submitting invited session proposals. Share your expertise, insights, and passion with our global community. Whether it's a thought-provoking panel discussion, a technical talk, leadership lessons, career perspectives, or student research, we welcome your submission! Sessions that incorporate our theme "Thriving in Your Environment" will be especially relevant. New this year: we will have "speed sessions" as well as grouping solo presenters into themed sessions, where possible.

Recordings of 2024 Presentations: Can't wait for this year's conference? We understand! You can relive the best moments of the 2024 Conference thanks to our YouTube Playlist! This is also a handy resource if you're new to the conference or are exploring the idea of submitting a session. Check out the old sessions to help you plan for this year!

Sponsorship Opportunities: Be part of our mission to empower women in statistics and data science. By becoming a sponsor, your brand will gain visibility across multiple platforms, including our conference website, social media posts, and YouTube videos. Your influence will extend far beyond the event itself. Explore sponsorship options here.

IDWSDS is now on LinkedIn! Keep informed about IDWSDS and share it with your network by following, liking, and sharing the posts on our new LinkedIn page! It might seem minor, but this is a helpful way to spread our global conference to more and more people. You can download and share the images from this page.

As always, if we can help support you by answering questions about the conference, please contact the organizing committee.

Many thanks for your support,
IDWSDS Organizing Committee

Looking ahead to JSM 2026: call for invited Session proposals

Planning is officially underway for the **2026 Joint Statistical Meetings (JSM)**, set to take place in **Boston, Massachusetts** next summer. As one of the largest gatherings of statisticians in the world, JSM brings together a vibrant global community dedicated to advancing statistical science through research, collaboration, and innovation.

In an era where data-driven decision-making is more vital than ever, your expertise and ideas can help shape the future of the field. The organizing committee is now accepting **Invited Session Proposals**, and you're encouraged to contribute your voice to this dynamic event.

Whether you're passionate about emerging methodologies, groundbreaking applications, or fostering interdisciplinary dialogue, JSM 2026 offers a platform to share your insights and spark meaningful conversations.

Need help getting started?

Here are a few questions to guide your proposal:

- What topics are you most passionate about?
- What new and important trends are emerging in your field?
- What would inspire an engaging and energetic discussion?
- Who would be an ideal participant in your session?

Don't miss the opportunity to be part of this influential event.
Submit your invited session proposal:
JSM 2026 Proposal Submission

Save the Date: IDSL 2025 – A Global gathering for statistical empowerment

Saleha Habibullah*

Subsequent to the first-ever International Day of Statistical Literacy (IDSL 2024) which was a highly successful online conference organized by ISLP on May 21, 2024, we are delighted to announce the launch of the second International Day of Statistical Literacy which will be held on Tuesday, 25th November 2025 from 10:00 am to 6:00 pm UTC.

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USA

Statistical literacy news from the US

Milo Schield*

US ISLP Representative, Milo Schield, published six papers and a handout-survey on confounding and Statistical Literacy in 2023-2024.

Teaching Confounding: Handout and Survey. "The 2016 GAISE update recommends teaching multivariate thinking (and confounding) in intro statistics." In this small group, participants were surveyed on the importance of confounding. 10/11 agreed that "Confounding is as important as randomness in studying variation." 8/11 agreed that "Confounding should be featured (15-20%) in an introductory statistical-inference class." But only 3/11 agreed that "Confounding should be featured in a separate introductory statistics class" while 4/11 disagreed. (Schield, 2023a)

Statistical Literacy: Humanistic Education for the Future. "The qualitative/conceptual reasoning used in the humanities is being pushed aside by the quantitative/observable reasoning used in the social sciences. Statistical comparisons seem as immutable as basic arithmetic. But social statistics are numbers in context. Most social statistics are subject to context in the same way that ideas involving the human condition are." (Schield, 2023b)

GAISE 2016: Analysis and Recommendations. "The GAISE 2016 update marked a major change in the recommendations for statistical education by including multivariate thinking and confounding: two topics that were totally absent from prior recommendations. The justification for these topics is analyzed along with their subsequent impact." "Based on the needs of our students, future GAISE updates should consider supporting three flavors of introductory statistics: consumer statistics (observational studies and confounding), producer statistics (traditional statistical inference) and data science statistics (computational thinking). (Schield 2023c)

Statistical Literacy for General Education. "Students need an introductory general-education course that helps them think critically about everyday statistics. Statistical Literacy focuses on how everyday statistics are constructed, influenced, and manipulated. Statistical Literacy is different: less than a 30% overlap with the traditional statistics. Traditional statistics focuses on random variation; statistical literacy focuses more on systematic differences. Students learn that comparisons of rates and percentages can change in size and direction after taking into account the influence of related factors: confounders." (Schield 2024a)

GAISE 2024 Proposal: Three Introductory Courses. The planned update to the ASA GAISE guidelines for introductory statistics should address three different introductory courses. "Stat 100 Statistical Literacy, Stat 101Traditional (Formulaic or "Normal")

Statistics, and Stat 102 Data Science Statistics. Stat 100 (Statistical Literacy) would focus on every-day (observational) statistics, multivariate thinking, confounding and 'taking into account' using simple techniques as shown in the 2016 GAISE update. Stat 101(Traditional or "Normal Statistics") would focus on using analytic models to analyze random variation, confidence intervals, p-values and statistical significance. Stat 102 (Data Science Statistics) would focus on using computers to produce, manipulate and summarize data, and on using simulation to generate statistical summaries and inference." (Schield 2024b)

Using English to Help Students Understand Quantitative Ideas. Ideas using of ordinary English in teaching quantitative ideas at the 3rd, 6th, 9th and 10th grade levels are preented. "This mixture of quantitative ideas and ordinary English seems to fall within the overlap between mathematics and English. English teachers are arguably better prepared to teach these ideas than mathematicians since English teachers have a much stronger focus on context, words and grammar. English teachers are invited to teach these ideas in their courses and in a statistical literacy alternative to Algebra 2 or AP statistics." (Schield 2024c)

Statistical Literacy: Ratio-Based Grammar Research. Students need "provisional classifications and grammatical structures for describing and comparing ratios. In order to provide guidance that is generally accepted, it must be empirically based on common usage. This requires research using a large corpus of text based on written and spoken English. This paper identifies the data sources used in generating these classifications and structures. And it summarizes the provisional classifications and grammatical rules obtained from this investigation." (Schield 2024d)

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South Africa

Unlocking the future – my experience as an educator in statistics, in a developing country

Delia North*

Bio and history in Statistics Education

Professor North holds a PhD in Mathematical Statistics (UND) and was the Dean and Head of the School of Mathematics, Statistics and Computer Science at the University of Kwa-Zulu Natal (UKZN) in South Africa (2019-2022), retiring as an Honorary Professor in Statistics in December 2023. She has over 30 years' experience in teaching Statistics at university level and over 15 years of experience in leadership at the University KwaZulu Natal. She has a long history of passion for teaching of Statistics, and she has led the South African Statistical Association Education Committee as Chair, for almost two decades. She is a Past Vice President of the International Association for Statistics Education. She continues to play a significant role in Statistics Education circles, nationally and internationally, through her involvement in Statistical conferences and participation in Statistics Capacity Building projects.

She has received various national and international awards in recognition of her contributions to Statistics Education. To mention a few, she received the UKZN Distinguished Teacher of the Year Award (2019), the Department of Basic Education Award for her outstanding contribution to Mathematics Education (2021), and the SAS Thought Leader of the Year Award, during the South African Statistical Association Annual Conference (2022).

This is her story

I certainly did not go to university to become a Statistician. Like many Statisticians, this happened quite by chance, or I would argue, by *good luck!*
I often reflect on how I became a Statistician, as this has undoubtedly played a contributing role in subsequent strategies and initiatives that I have undertaken to build Statistics capacity in my country.

Let me start at the very beginning. I came from a large family (4 children born within 5 years), we lived in a suburb that was below middle income. I had a wonderful childhood, loved Mathematics when I was at school, a subject I excelled in…. but our school never told us about university as a post-school option to consider. Consequently, I was totally clueless about university as a study option for me after school. We were a family of 3 daughters and my father had *decided* that his girls would all be teachers. It was a defendable argument, as family finances were *tight*, the Teacher Training College studies were government sponsored and the Teacher Training College was situated in Durban, where we lived. I was content with this plan my father presented to me when I was in grade 12, and it really did seem like a good plan, as my older sister was already attending the Teacher Training College, and she loved it…. but then something happened that BLEW MY MIND and *changed the plan for my post-school studies!*

I was invited by a friend's family to attend a university graduation ceremony with them, as their eldest son was getting a Master's Degree in Agriculture from the University of Natal. I had ZERO clue what a university was, let alone a master's degree, as no one I knew had gone to university, and my school never told us about university study as a post school option.

I was just excited to go with the family, from a social point of view…so off I went to a university graduation ceremony, and in that instant when I saw the unfolding ceremony, *my world was ROCKED!* I heard *the music play, I saw all the people in robes* (particularly the red robes!) and instantly I knew this was what I wanted! I saw that one could *get a Doctorate in Mathematics and wear a RED GOWN* at that graduation ceremony! I vowed that I would be up there one day, up on that stage with my red gown and prowess in Mathematics… I was after all very good at Mathematics at school, and I felt I could do it too!

Long story short, it took 4 months of crying, begging etc until my dad realized that I was totally committed to finding a way of going to university, as I found out that I could get a bank loan, and this was set in motion. I went to a bank, begged my dad to sign the form, and eventually I was all set for university!

LESSON 1: Many learners at school level (particularly from developing countries) are *clueless* about *University as a post school study option that is attainable for them,* if they get good enough grades.

I entered university in January of 1977, motivated and ready to do well in Mathematics and Mathematics-type subjects, so I chose Mathematics, Chemistry, Physics as first year choices, but needed one more subject in year 1 to add to my study plan. The advisor said "Statistics is a type of Mathematics", so *Statistics was added to my listing of subjects*….and wow, what an AWESOME a decision that turned out to be! I fell in love with Statistics from day one, and it became my favourite subject from first year onwards.

LESSON 2: Many students entering university have *no clue of Statistics as a study subject of choice* (Statistics is poorly defined, in the school Mathematics curriculum)–even today in the data age, this is still an ongoing problem.

I attended an Afrikaans medium school from Grade 1 to Grade 12 – I found it extremely difficult to change over to English at University level, as the terminology is so different. I was lost at times, not knowing the Mathematics terminology in English (e.g. In my Afrikaans schooling, we said "raaklyn" for tangent, and "gelykbenige driehoek", for isosceles triangle, etc). *It was a shock to me to realize that I could speak in English socially, but could not understand much of Mathematics in English, as I did not know the terminology, and got lost in explanations!*

The bottom line, I was GREAT in Mathematics when doing it in Afrikaans at grade 12, but I was totally

lost in first year Mathematics classes at university, when taught in English. *IN addition, I could not think abstract thoughts in Mathematics, in English.*

LESSON 3: South Africa has 11 official languages, universities in the country only offer studies in English and Afrikaans medium. Many students will suffer the same fate that I did, i.e. could be good in Mathematics, but get poor results initially, due to language miss alignment.

Many learners study in a language that is not their Mother Tongue – this has led me to appreciate the power of pictures, tables, graphs, mind maps, to convey intricate mathematical messages, where language is a barrier. Most importantly, I have found that I need to continually stress to students that are in the same predicament as I had been, that *things will improve.* Working extremely hard, even if you feel that your efforts are not translating into good marks initially, is not easy, but things will improve if the student in this situation perseveres. So, I spend a lot of time reassuring such students in first year, if their school language was not English.

I loved Statistics from day 1, and it became my favourite subject, but this subject was generally not popular amongst students in my class (and *that* became my *SUPERPOWER*). I graduated with a BSc, with Majors in Mathematical Statistics and Mathematics, along with 32 other students that chose this same set of major subjects in the 3-year BSc degree, at my institution.

In the fourth year of study, a student who has a BSc degree and wishes to pursue further studies, has to choose a single subject from third year level, to take as a 1-year Honours degree subject. I was the **only student that** chose to do **Statistics Honours** (4th year) in 1980 at my institution! Even more strangely, NO STUDENT had chosen to do Statistics Honours degree at my institution, for the previous 5 years! I saw this as an opportunity to stand out from the rest, and decided right then and there, to do highest level studies in Statistics that I could. This really set me up to be in academia, as I had the wonderful Statistics academic staff guiding me, as they tried to inspire me to do post graduate studies…and I decided that year to be an academic Statistician.

It was only in later years, with the data revolution, that I fully appreciated the impact of my decision to study Statistics, at Honours level onwards – I wanted to do Mathematics with my friends, but took the lonely road of being the only student in Statistics at level 4 onwards, but it sure paid off.

I became a full time Lecturer in Statistics at the University KwaZulu-Natal in 1982, after I had gone on to complete my Master's degree in Mathematical Statistics (Advanced Probability Theory was my subject area of choice). I followed this up with a PhD in Measure Theoretic Probability. I was very privileged to be in a very nurturing academic department, where I received so much support and encouragement to grow, ultimately becoming the Head of Statistics Department and leading the School of Mathematics, Statistics and Computer Science in later years.

The lessons I learnt along the way, have all contributed to my life-long passion of being an *effective Statistics* educator in a developing country, who aims *to open doors for ALL learners to thrive in the data-driven world, that we live in today.*

What I realized very early on in my academic career, is that I need to be clear-headed about what I am aiming to do, then to ensure that I have the best possible systems and support bases in place, to achieve my aim. I joined the South African Statistical Association very early on in my academic career (1982, when I was just a Postgraduate student, starting to teach Statistics), gravitating to the Education sessions at annual conferences. I was always very active in the Statistics Education discussions at conferences and after a few years, was leading the Education Committee of the South African Statistical Association.

In 2002 South Africa hosted the ICOTS6 Conference, where I was Chair of the LOC and had the opportunity of working closely with the World Experts in Statistics Education. This was an eye opener for me, as I was privileged to meet the Statistics education experts from around the globe.

At one of these international conferences I attended, I heard the President of the IASE, Prof Helen Mc Gillivray say that the challenges and obstacles faced when attempting to grow Statistical literacy/ expertise at all levels, is the same for Developing Countries as for Developed Countries, *but of higher magnitude and of a more urgent time line to resolve, in Developing countries than in the Developed world!* Wow that really struck a chord with me, and I knew that I wanted to make a BIG difference to Statistics Education in South Africa, but had to observe my international colleagues closely, to learn from them. I decided then and there, to do what I can, to help Statistics Education grow in my country, across the full skills value chain, ie from school to university, and from university into the workplace, by attending as many ICOTS and International Statistical Institute conferences as I could.

I knew I had to start at the bottom, raising awareness of Statistics at school level, then ensure that universities are aligned to produce the kind of data skilled graduates that are needed for the workplace.

We live in a data-driven world today and never has it been more VITAL to ensure that a developing country, such as South Africa, has systems and processes in place for a healthy skills value chain, to produce skilled data professionals, at all levels. To stay at the forefront of developments in Statistics Education internationally, I attend as many ISI and International Association for Statistics Education (IASE) conferences as possible, then strategize to implement new processes locally.

LESSON 4: I realized that the best strategy would be to observe best practises in Statistics Education internationally, then to adapt these practises to be suitable in the unique South African context

Ultimately, I wanted to build a *strong* Data Skills Value Chain, which starts with learners at school experiencing learning from data, so that there is some recognition of Statistics and Data Science as tertiary level study areas (main line or service course). From my own experiences, I knew I had to involve staff and post graduate students to be representative of our diverse population, as being able to inspire teachers and our youth, starts with “it is attainable, as he/she could do it, hence so can !”.

The first big Teacher Conference I personally organized was called the KZN Maths4Stats Saturday morning Teacher program, run at my institution (UKZN), on 5 consecutive Saturday mornings each year, from 2010 to 2016. Teachers that attended were identified by the Department of Education

With Mr Trevor Manual, the Minister of Finance, and Mr Pali Lehohla, the Statistics General of South Africa, at a gala event when a group of teachers were identified to attend ICOTS7 in Bahia Brazil in 2006, as part of the Maths4stats Program. I was part of the Maths4stats team that lead the teachers during ICOTS7

as coming from “worst performing schools” in the province. I wrote the notes for the program, the teachers were broken into smaller groups and taught by University Statistics staff, with tutorial groups assistance by Postgraduate students. This was run annually on UKZN campuses from 2010 to 2016, to assist teachers to come to grips with the introduction of Statistics into the school curriculum. Teachers were given posters for their class rooms, materials to demonstrate probability concepts (Dice, Plastic discs etc.), and above all, a well written guide to give them prepared lessons and exercises in Data Handling and Probability

Teachers really enjoyed the workshops, and loved the interactive Clicker workshops and group sessions.

On surveying teachers after the 5-week (Saturday morning) course, I was fascinated to find out that teachers loved learning Statistics and particularly enjoyed playing the Probability games. The fact that the notes were written in way that helps the teacher encourage learners to discover Statistical concepts in action through activities, was something that they highly appreciated.

The Maths4stats Saturday morning classes were

sponsored by Statistics South Africa, the NSO and a follow-on from the national Maths4stats program, initiated by the Statistics General, Mr Pali Lehohla, who had a great heart for building a love for Statistics amongst school children. I was one of two Master Trainers on the Government Maths4stats program, when Statistics was introduced into the school curriculum, so the UKZN program was really an extension of the national Maths4stats teacher training program.

Lesson 5: I only realized later, that it is extremely important to work through the correct structures and professional bodies, when aiming to build Statistics Education in the country. If I had not worked through the South African Statistical Association and the National Statistics Office (Statistics South Africa), my aim to build Statistics capacity in the country, would not have been as successful as it turned out to be. This not only lead to funding being available for teacher workshops, but also gave credibility to my efforts and the "reach", as I was able to get schools that were most in need of assistance, from across the province, to attend the training at my institution. The key was that the government Department of Education chose the schools that attended the 5-week Saturday morning course at UKZN, with administration support supplied by the NSO, Statistics South Africa.

I further learnt that taking role models to schools is extremely important, when wanting to reach learners. I started a *Women in Analytics* project in 2018, to showcase to young ladies in high school, what Statistics is, and how studies in this discipline could give them a good future.

I encourage the third and fourth year Statistics students to give a talk about their studies in Statistics, to Grade 11 and Grade 12 learners, at the schools that they attended. I pay their travel expenses home, if they show me a photo of them talking at the school. *There is nothing more motivational than knowing it is possible, as someone who sat in these **same benches** at school a few years ago, is now studying Statistics at university.*

I always took young female Statistics staff and female post graduate students with me to speak to the school girls, as I knew that they would be more "relatable" to the teenage girls

I later moved this program online, which was a major success, as I could now have international guest speakers to really impress the schoolgirls such as Professor Jennifer Priestly from Kennesaw State University. I followed this program up with a "Dudes in Data" program, which similarly aimed to excite school boys about the potential to study Statistics and Data Science at tertiary level. I was fortunate enough to have even the President of the ISI, Prof John Bailer speak to the school boys about a future in Statistics! These programs have been extremely successful and are cost effective to run in an online mode, though of course this means that schools without computer facilities are excluded.

In order to ensure that our programs at university deliver the kind of graduates that are needed in the fast-changing, data-infused modern workplace, the UKZN Statistics sector put a system in place to encourage Co-Supervision with Industry, through establishing a Data Science Unit that focuses on

- Co-Supervision with Industry
- Projects Topics from Industry: Internships, Bursaries
- ***Awareness:*** *new knowledge need*

I have further invited a number of world-renowned Statistics Education experts to give talks and workshops at the South African Statistical Association conferences, such as Prof Gabriella Ottaviani (2005), Prof Helen Mac Gillivray (2007), Prof Iddo Gal (2014), Prof Jennifer Priestly (2021), Prof Jim Ridgeway (2018)

What I have learnt, above all, is that is it vital to work through national bodies, such as the South African Statistical Association, the Department of Education and the South African Statistical Association, when wanting to make a significant contribution to building Statistics capacity in the country.

Though I retired from university at the end of 2023, I continue at my institution as an Honorary Professor, and attend local and international Statistics conferences, in an attempt to stay in touch with the latest development in Statistics Education.

I was so lucky to "find" Statistics by *chance,* but I will purposefully work hard to ensure that as many young boys and girls as possible, do not have to find Statistics by *chance,* but have full appreciation of this study area in the data era.

When I think back, the biggest moment that lead to all my success in Statistics Education, was that day I went to a graduation ceremony and saw the Red Gowns and heard the music play for successful graduates – there is nothing more important than advocacy, to spark an interest and "open a mind", to dare dream that it is possible,….*because it IS!*

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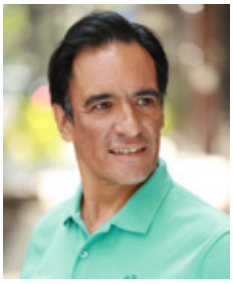
International Statistical Literacy Project

Poster Competition 2024-2025 ISLP



Adriana D'Amelio*, Hugo Hernandez**

The ISLP Poster Competition is one of the most relevant activities of International Statistical Literacy Project that has been held since 2010. In the 2024-2025 edition more than 80 posters in four categories made by thousands of students, along with their tutors, from more than 30 countries all over the world took part.

This event demands a lot of work from many different people: Students, tutors, country coordinators, juries (three in each category), the ISLP itself, all of them working voluntarily just for the benefit of the Project. And we had the honor to organize the international phase on this last edition.

We've faced plenty of things to work out, starting with schedules, assessing scheme, advertising, rules, juries and so on. And then, virtual meetings with time gaps up to 16 hours among participants.

Upgrading the grading tables was one of the most important tasks, mainly because the new division, elementary, has its own criteria, different from the higher divisions, due to the level of statistical knowledge. Regarding the calendar, the 65th ISI had the peculiarity of being programmed in October instead of June, which caused a reschedule.

We met with the country coordinators to promote the competition and to inform about the dates and the new division.

We've also held special meetings to assess the best alternatives for jury members in each division. Later, we've scheduled meetings with the juries to clarify the rules and process, and another one at the end of the evaluation process to close the final agreement. The jury members took between 30 and 60 minutes to grade a poster and write down the observations. We must say here that all of them did a wonderful job and that we are very grateful for their support.

We must say as well that there are some new ideas for the improvement and updating of the future competitions that arose from the jury meetongs.

In the Elementary division 17 posters were presented, addressing subjects like health and welfare, education, environment and entertainment. Accident analysis, nutritional content, ecological consciousness, videogames and more were included as ideas. Ideas on research and happiness studies, immigration and learning through artificial intelligence were explored as well.

In the Lower Secondary division 19 posters were presented with subjects such as health (including puberty, vegan diet, COVID-19 effects, healthy life

expectancies), technology (artificial intelligence, impact of cell phones in learning), sports (analysis on cricket stats), environment (renewed energy), education (backpack weight), society (hate speech), being exploratory ideas of different sides of the daily life and society.

In the Upper Secondary division 26 posters participated addressing a wide range of subjects, like education (technology impact, use of artificial intelligence AI tools, curricular activities, academic efficiency), health (physical and mental health, impact of physical activity, text neck syndrome, air quality), environment (Amazon deforestation, urban vegetation, renewed energies), technology (AI and the impact in education and society), social studies (demography, feminicides, welfare). Once again, the subjects are about important aspects of daily life and society, pointing at challenges and opportunities in diverse sectors.

In the University division 22 posters participated with subjects such as health and welfare (happiness, nutritional risks, smoking addiction, maternal and newborn health, overweight, blood pressure), technology (technological trends, impact of the cell phones evolution, AI in education, use of generative AI), environment (growth of renewed energies, impact of the CO2 emissions, visibility and wind effects on solar panels), economy (economic growth, climate action, medical attention and education in different countries, stock market analysis), education (use of Chat GPT, trust and satisfaction in Statistics learning through generative AI), social studies (immigration, online shopping habits, facts verification).

These subjects cover aspects of daily life, health, education, economy and environment.

The wide variety of topics and the constant presence of the most recent ones, thanks to the efforts of the country coordinators, tutors, and students, give us a clear idea that the main objective of the competition is being met: to ensure that students acquire real training in Statistical Literacy.

El Concurso de Pósteres del ISLP es una de las actividades más relevantes del Proyecto de Alfabetización Estadística, que se lleva a cabo desde 2010. En la edición 2024-2025 participaron más de 80 pósteres en cuatro categorías, elaborados por miles de estudiantes y sus tutores, de más de 30 países de todo el mundo.

Este evento exige un gran esfuerzo por parte de diversas personas: estudiantes, tutores, coordinadores nacionales, jurados (tres en cada categoría) y el propio ISLP, todos ellos trabajando voluntariamente en beneficio del Proyecto. Tuvimos el honor de organizar la fase internacional de esta última edición.

Se resolvieron muchos aspectos, desde los horarios, el sistema de evaluación, la publicidad, las normas, los jurados, etc. hasta las reuniones virtuales con intervalos de hasta 16 horas entre los participantes.

La actualización de las tablas de calificación fue una de las tareas más importantes, principalmente porque la nueva división, elemental, tiene sus propios criterios, diferentes de los de las divisiones superiores, debido al nivel de conocimientos estadísticos. En cuanto al calendario, la 65.ª edición del ISI tuvo la particularidad de programarse en octubre en lugar de junio, lo que provocó una reprogramación.

Nos reunimos con los coordinadores de país para promocionar la competencia e informarles sobre las fechas y la nueva división.

También realizamos reuniones especiales para evaluar las mejores alternativas para los miembros del jurado en cada división. Posteriormente, programamos reuniones con los jurados para aclarar las reglas y el proceso, y otra al final del proceso de evaluación para cerrar el acuerdo final. Los miembros del jurado dedicaron entre 30 y 60 minutos a calificar cada póster y anotar sus observaciones. Cabe mencionar que todos hicieron un excelente trabajo y estamos muy agradecidos por su apoyo.

También cabe mencionar que surgieron nuevas ideas para la mejora y actualización de futuras competencias, fruto de las reuniones con el jurado.

En la división Elemental se presentaron 17 pósteres que abordaban temas como salud y bienestar, educación, medio ambiente y entretenimiento. Se incluyeron ideas como análisis de accidentes, contenido nutricional, conciencia ecológica, videojuegos y más. También se exploraron ideas sobre investigación y estudios de la felicidad, inmigración y aprendizaje mediante inteligencia artificial.

En Lower Secondary se presentaron 19 carteles sobre temas como salud (incluyendo pubertad, dieta vegana, efectos de la COVID-19, esperanza de vida saludable), tecnología (inteligencia artificial, impacto de los teléfonos móviles en el aprendizaje), deportes (análisis de estadísticas de críquet), medio ambiente (energías renovables), educación (peso de las mochilas) y sociedad (discursos de odio), explorando ideas sobre diferentes aspectos de la vida cotidiana y la sociedad.

En Upper Secondary, participaron 26 carteles que abordaron una amplia gama de temas, como educación (impacto de la tecnología, uso de herramientas de inteligencia artificial, actividades curriculares, eficiencia académica), salud (salud física y mental, impacto de la actividad física, síndrome del cuello de texto, calidad del aire), medio ambiente (deforestación de la Amazonía, vegetación urbana, energías renovables), tecnología (inteligencia artificial y su impacto en la educación y la sociedad) y estudios sociales (demografía, feminicidios, bienestar). Una vez más, los temas abordan aspectos importantes de la vida cotidiana y la sociedad, señalando desafíos y oportunidades en diversos sectores.

En la división Universitaria participaron 22 carteles con temas como salud y bienestar (felicidad, riesgos nutricionales, tabaquismo, salud materna y neonatal, sobrepeso, presión arterial), tecnología (tendencias tecnológicas, impacto de la evolución de los teléfonos móviles, inteligencia artificial en la educación, uso de IA generativa), medio ambiente (crecimiento de las energías renovables, impacto de las emisiones de CO_2, visibilidad y efectos del viento en los paneles solares), economía (crecimiento económico, acción climática, atención médica y educación en diferentes países, análisis bursátil), educación (uso de Chat GPT, confianza y satisfacción en el aprendizaje de estadística mediante IA generativa) y estudios sociales (inmigración, hábitos de compra en línea, verificación de datos).

Estos temas abordan aspectos de la vida cotidiana, la salud, la educación, la economía y el medio ambiente.

La gran variedad de temas y la presencia constante de los más recientes gracias al esfuerzo de los coordinadores de países, de tutores y de estudiantes nos dan una idea clara de que se está cumpliendo el objetivo principal del concurso: lograr que los estudiantes adquieran una formación real sobre Alfabetización Estadística.

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Italy

The ISLP poster competition 2024–2025 in Italy



Barbara Ascari*, Patrizia Collesi**, Francesco Michele Mortati***

Italy can be considered a veteran of the ISLP statistical poster competition, having participated since 2010.

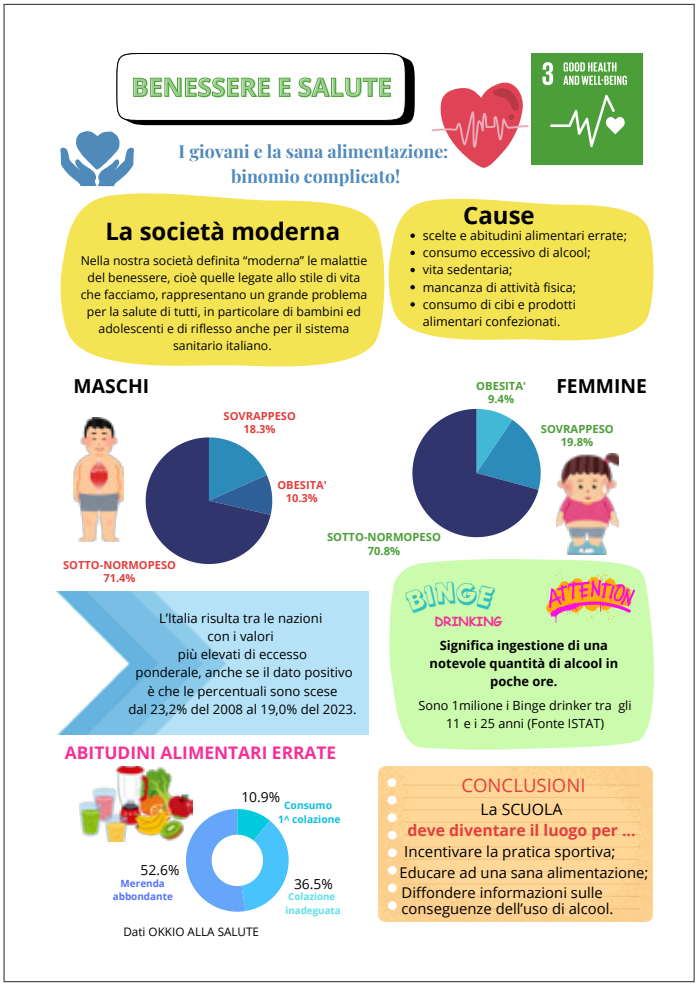
Italian schools have achieved excellent results in the various editions of the competition. To mention only the most recent years, in the 2022/23 edition, Italy won second place in the upper secondary school category with the poster "Are We Cultivating the Agriculture's Future in Italy" and third place in the lower secondary school category with the poster "Top 100 Most Streamed Songs Analysis". And in the 2018/19 school year, a team from the University of Turin ranked first worldwide with the poster "The gap between reality and perception". That edition was the first in which the participation was extended to university students.

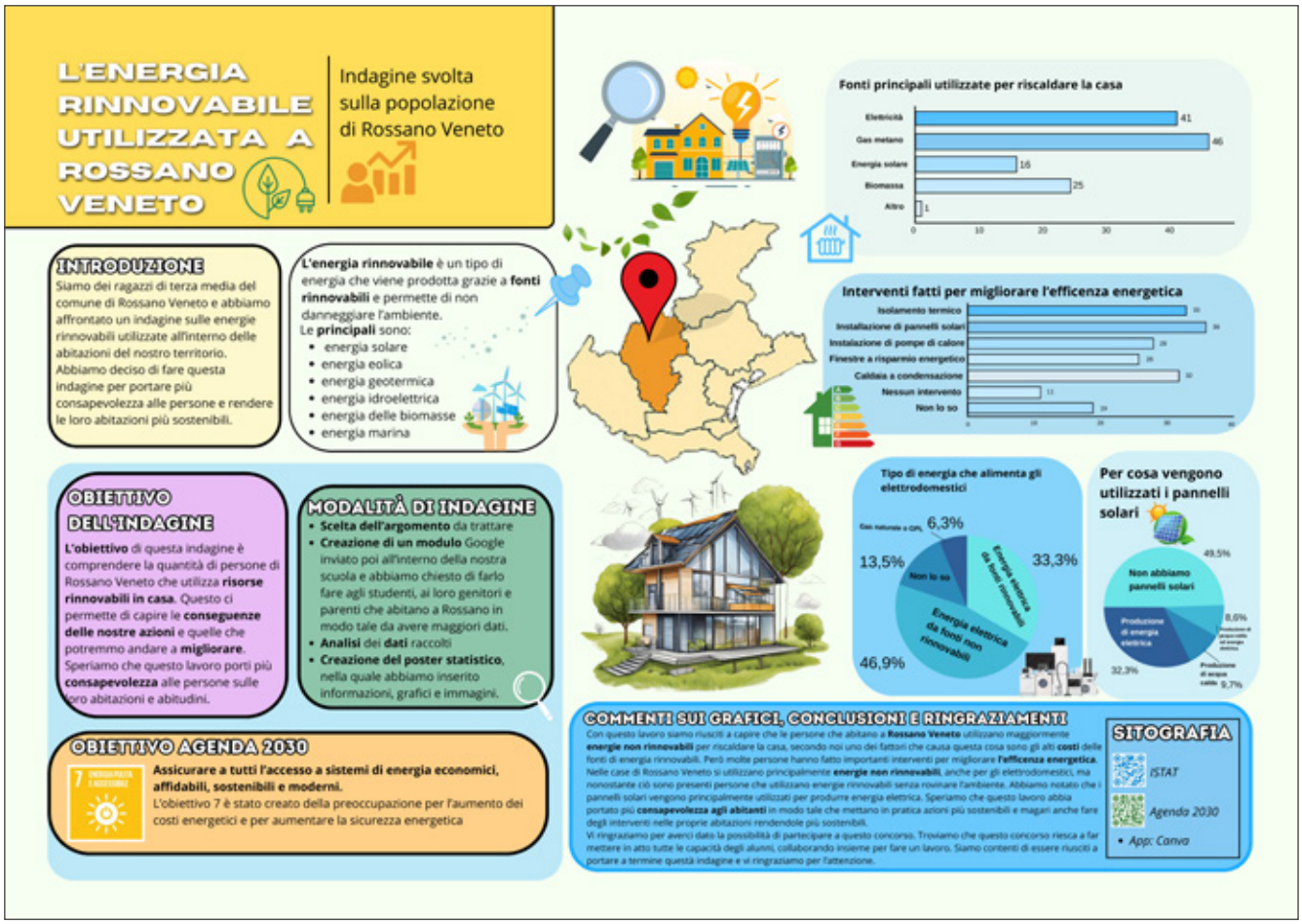
This school year, the Italian competition opened on 18 September; the registration deadline closed on 24 December 2024, and the deadline for submitting posters was 22 January 2025.

This edition saw a record participation for Italy in the four categories admitted in the Regulation: primary schools, lower secondary schools, upper secondary schools and bachelor level students. 193 posters were submitted, including 144 for upper secondary schools; 10 posters were received from primary schools, 32 from lower secondary schools and 7 from universities. A total of 743 students participated, including 48 from primary schools, 141 from lower secondary schools, 531 from upper secondary students and 23 from universities.

The Italian coordinators chose to assign a single poster topic for all competing categories, "The 2030 Agenda." Istat made materials on monitoring the 2030 Agenda for Italy available in the dedicated section of its institutional website. Within the given theme, students chose one or more goal(s) on which to focus their posters. Among the most popular goals were gender equality and violence, climate change, youth and education, poverty.

The winning posters reflect this trend. In the first place for primary schools there is a poster focusing on young people's eating habits, "**Well-being and health**," by the team of a V class of a primary school in Cantalupo nel Sannio (Isernia). For lower secondary schools, the winner is "**The renewable energy used in Rossano Veneto**" by the students of a III class of the Istituto Comprensivo "G. Rodari" in Rossano Veneto (VI).





"**The weight of numbers: feminicides in Italy**" is the winner for the upper secondary school category, by a team of a V class of I.T.E. "A. Bassi" in Lodi. First place among university students was awarded to the poster entitled "**Is health happiness?**", by a team of the University of Turin.

For several editions already, it has been decided to add special mentions to the national competition for posters that are particularly deserving for the quality of their work. In the edition that has just ended, based on the number of participants in each category, the following were awarded: one mention for primary schools, two mentions for lower secondary schools, five mentions (one for each school year) for upper secondary schools, and two for universities. Given the large participation, the aim of these mentions was to increase the number of posters worthy of recognition, also in order to satisfy and retain as many students as possible.

In addition to winners and mentions, all students were awarded a certificate of participation.

Given the success of the national edition that has just ended, it has been decided to introduce a national edition for the upcoming school year, even in the absence of the international competition. This "special" national edition will be part of the celebrations for the centenary of Istat (in 2026).

The success of the recently concluded edition and, hopefully, that of the planned special edition demonstrate how statistical posters continue to be an effective and engaging means of communication for students, teaching them to look at the reality around them in a critical and informed way.

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Brasil

Brazil's participation in the ISLP poster competition 2024–2025

Bianca Walsh*, Mauren Porciúncula**

The 2024–2025 edition of the ISLP Poster Competition in Brazil set a record: **195 posters** were submitted. This is about **ten times more** posters compared to the previous editions. The competition was promoted by the National School of Statistical Sciences (Ence) of the Brazilian Institute of Geography and Statistics (IBGE), and by the Center for Innovation in Statistical Education (ICE) at the Federal University of Rio Grande do Sul (FURG). It involved students and teachers from all regions of Brazil, from public and private schools, in urban and rural areas.

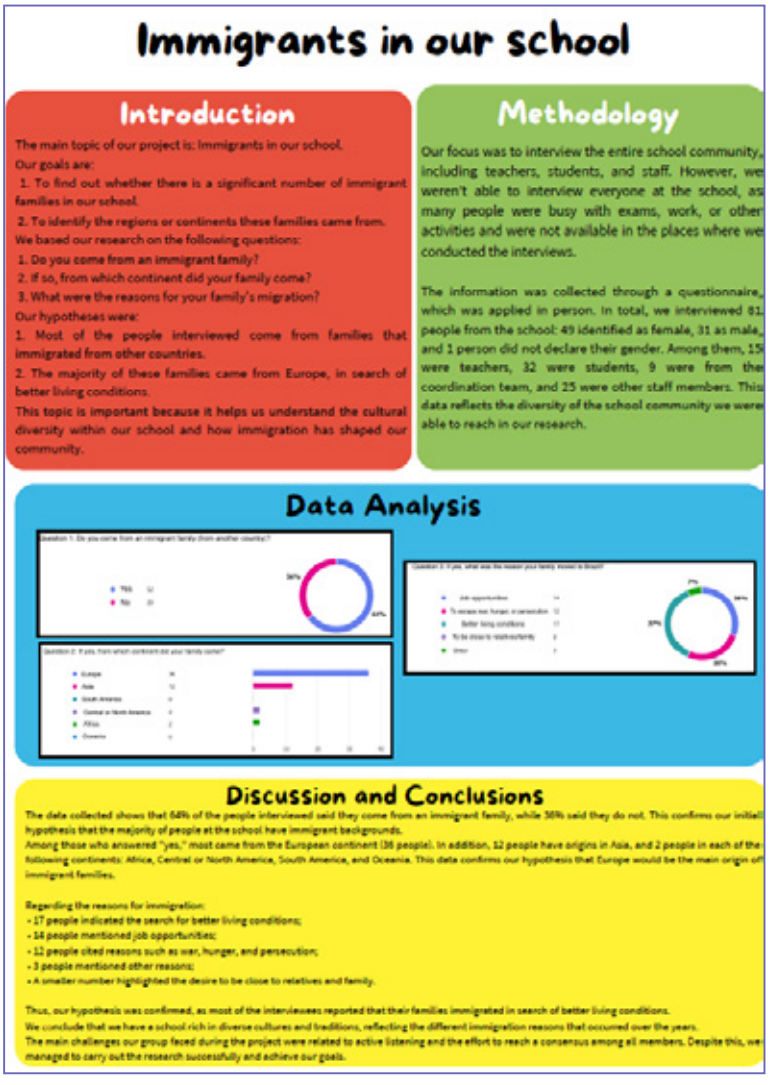
Launch and organization

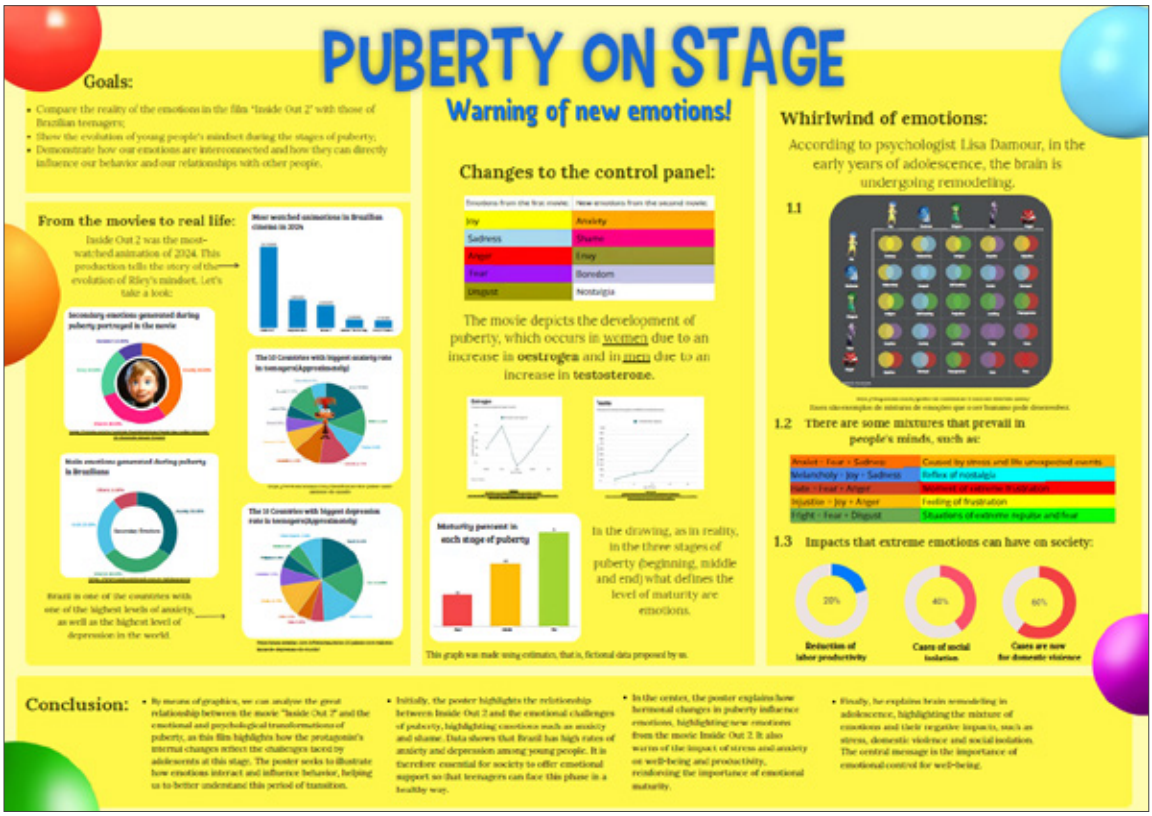
The official launch took place on June 26, 2024, with broad institutional support. The competition was publicized through the IBGEeduca portal (https://educa.ibge.gov.br/educa-eventos/islp-2024-2025/pagina-inicial.html); the social media channels of IBGE, Ence, and FURG; state and municipal education networks; universities; statistics and mathematics associations; and education conferences. The organizing team offered ongoing support to teachers, answering questions via the ISLP Brazil email address and social media.

Categories and highlights

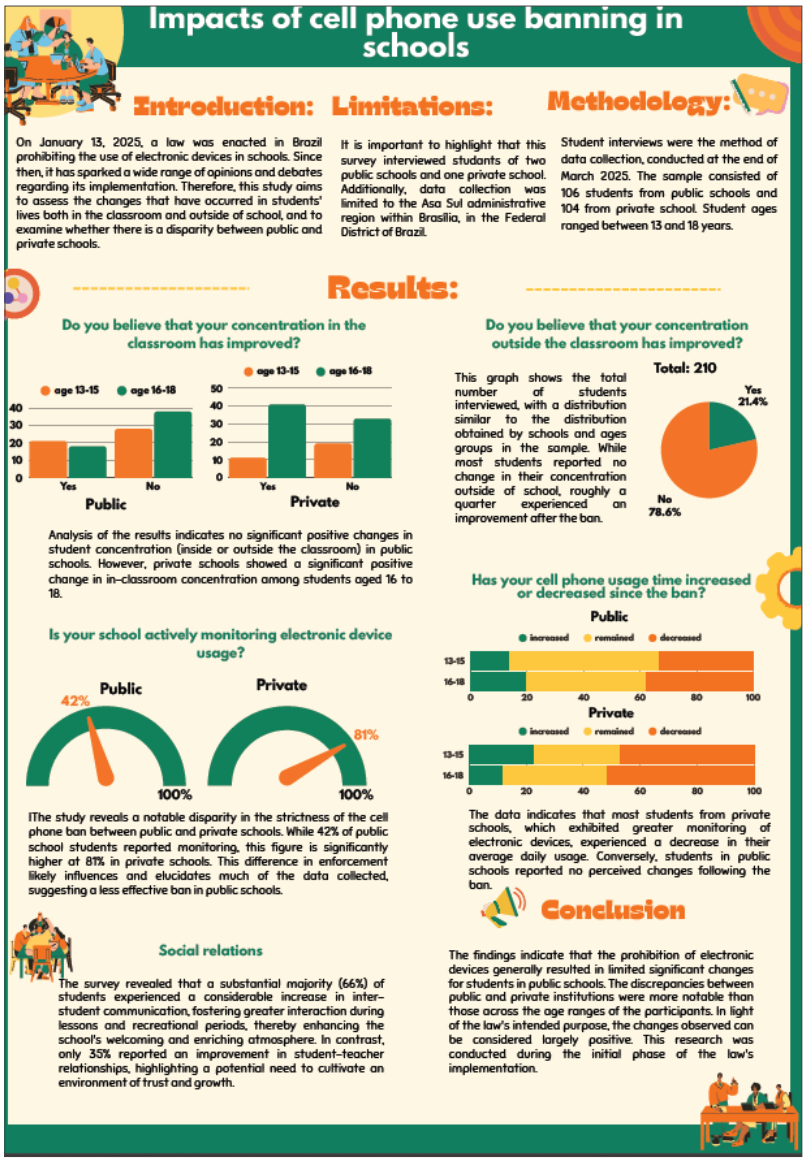
In Brazil, the categories were classified in letters **from A to D**, according to the international rules of the Competition.

1st winner – Category A (9 to 11 years of age) – lower middle school

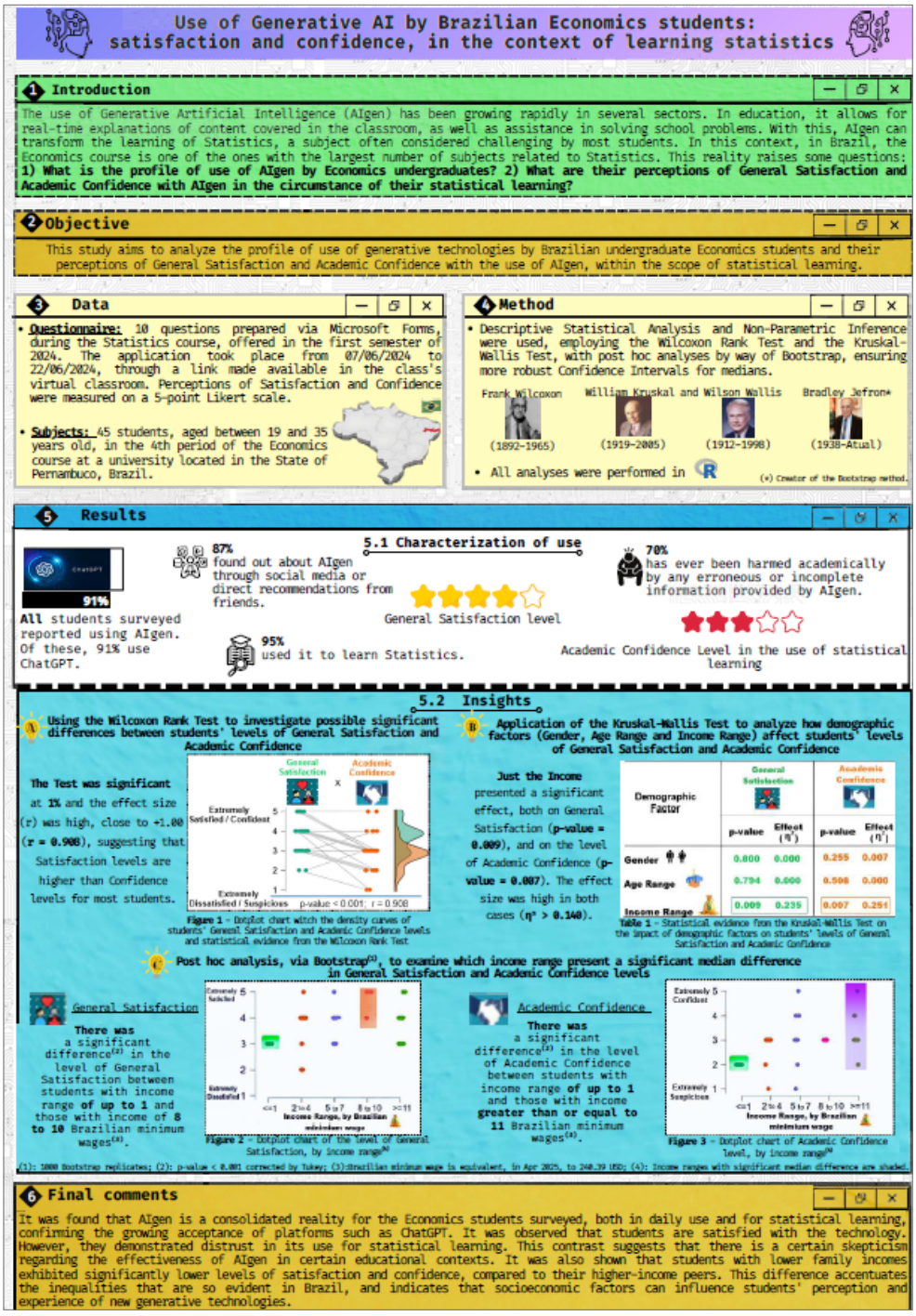




1st winner – Category B (12 to 15 years of age) – higher middle school



1st winner – Category C (16 to 18 years of age) – high school



1st winner – Category D – students from graduation courses

In total, **574 students** and **70 teachers**[1] from all regions of Brazil participated. Category C had the largest number of submissions: 80 posters. Pictures 1 to 4 show the first-place winners from each category.

National judgement and poster themes

The judgement process has already been finished, and the national results have been released on IBGEduca's website: https://educa.ibge.gov.br/educa-eventos/islp-2024-2025/resultados.html. An award ceremony is scheduled for September 2025. The three winners of each category will receive a financial award.

1 Many teachers submitted several posters.

The posters in Brazil displayed diverse themes, which reflect students' daily lives and interests. The themes of the winner posters are organized below in major topics.

Health:
puberty; dengue epidemics; access to public health system.

City infrastructure:
transportation; access to cultural establishments; use of public spaces.

Social behavior:
understanding of love; habits in free time; use of cell phone in schools; use of AI; prejudice; immigration.

International stage

The winning posters from the national stage were translated into English and sent to the ISLP international coordination. They will represent Brazil at the IASE Satellite Event of the 65th World Statistical Congress (ISI WSC), which will take place from October 5th to 9th, 2025. Brazil sent finalists in all categories, raising expectations for an international award at this edition.

Impacts and perspectives

The competition is growing in Brazil as a powerful strategy for the teaching and learning of statistics in formal education. As the national coordinators emphasize, "poster production allows students to formulate questions, investigate data, and develop well-founded arguments, bringing statistics closer to reality and citizenship."

Acknowledgements:
The Brazilian team would like to thank all the students, teachers, schools, and educational institutions that contributed to the success of the ISLP Poster Competition in Brazil. We remain committed to statistical literacy and strengthening data-driven teaching practices.

The partnership between ICE/FURG and Ence/IBGE has expanded the ISLP Poster Competition's outreach in Brazil, which contributes to fostering teachers' update on statistical teaching practices and amplifying students' experiences of statistical literacy.

Country coordinators:

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Brazilian Institute of Geography and Statistics
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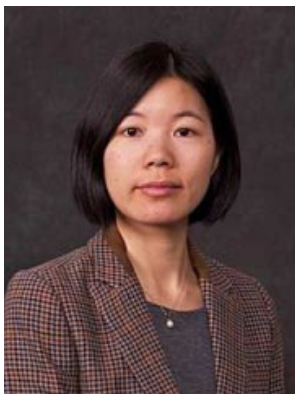
Canada

The 2024-2025 Canadian statistical literacy project poster competition



Bingrui (Cindy) Sun*

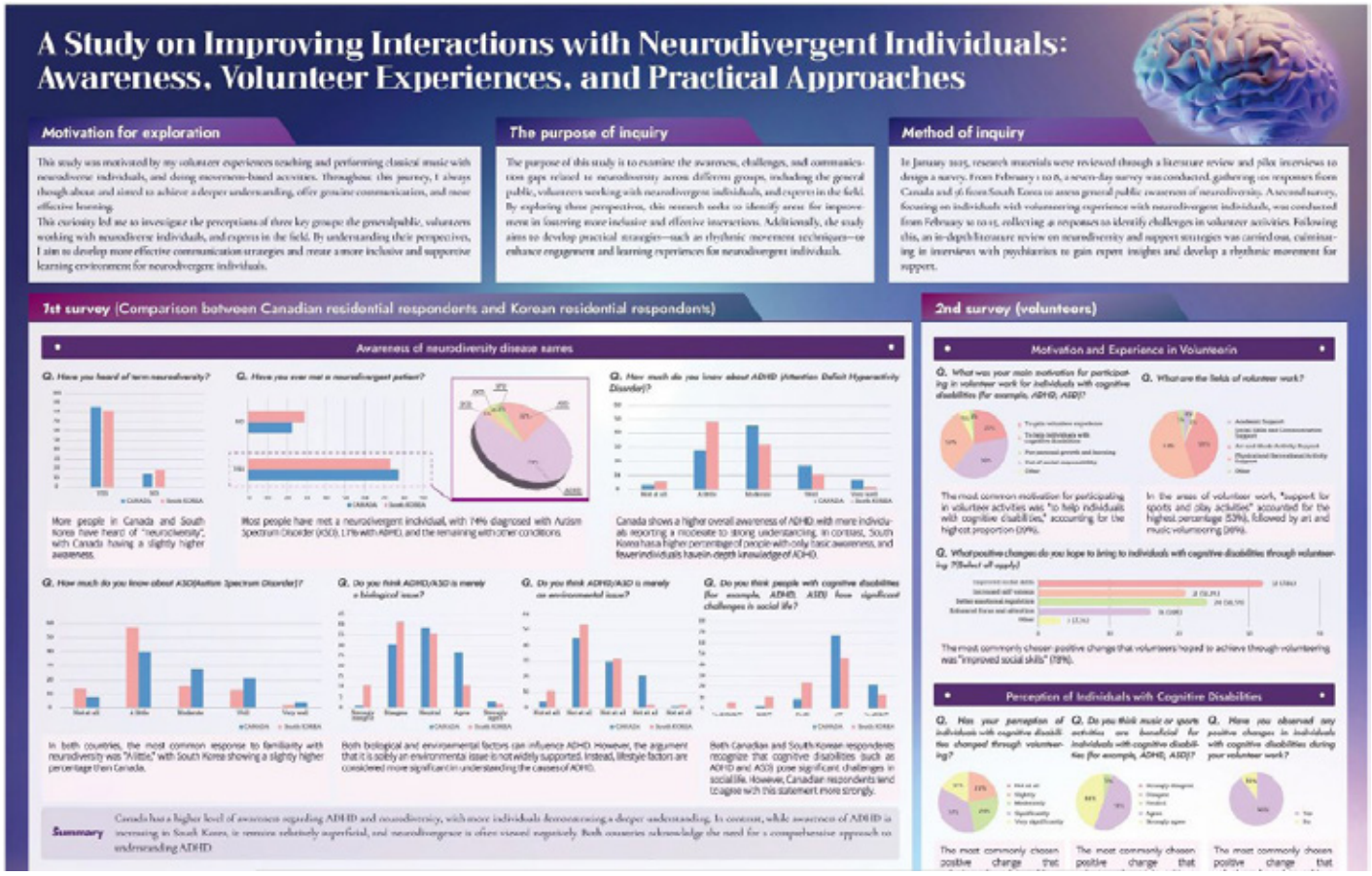
The Statistics Education Committee (SEC) of the Statistical Society of Canada (SSC) organized and ran the Canadian edition of the 2024-25 "International Statistical Literacy Project (ISLP)" poster competition.

The SEC received 36 posters in all from students in Grades 7-9, 10-12 and at the bachelor's level. 84 students participated in the competition from 10 schools or universities spanning three provinces of British Columbia, Alberta and Ontario. The SEC was impressed with the calibre of posters received and awarded seven prizes to the top posters as follows.

In the **Grade 7-9** category, **Brendan Cai** from Merivale High School in Ottawa, placed **first** ($500) with the poster titled "Can Statistical Analysis Help Me Arrive at School on Time?" Judges were

Category Grade 7-9:

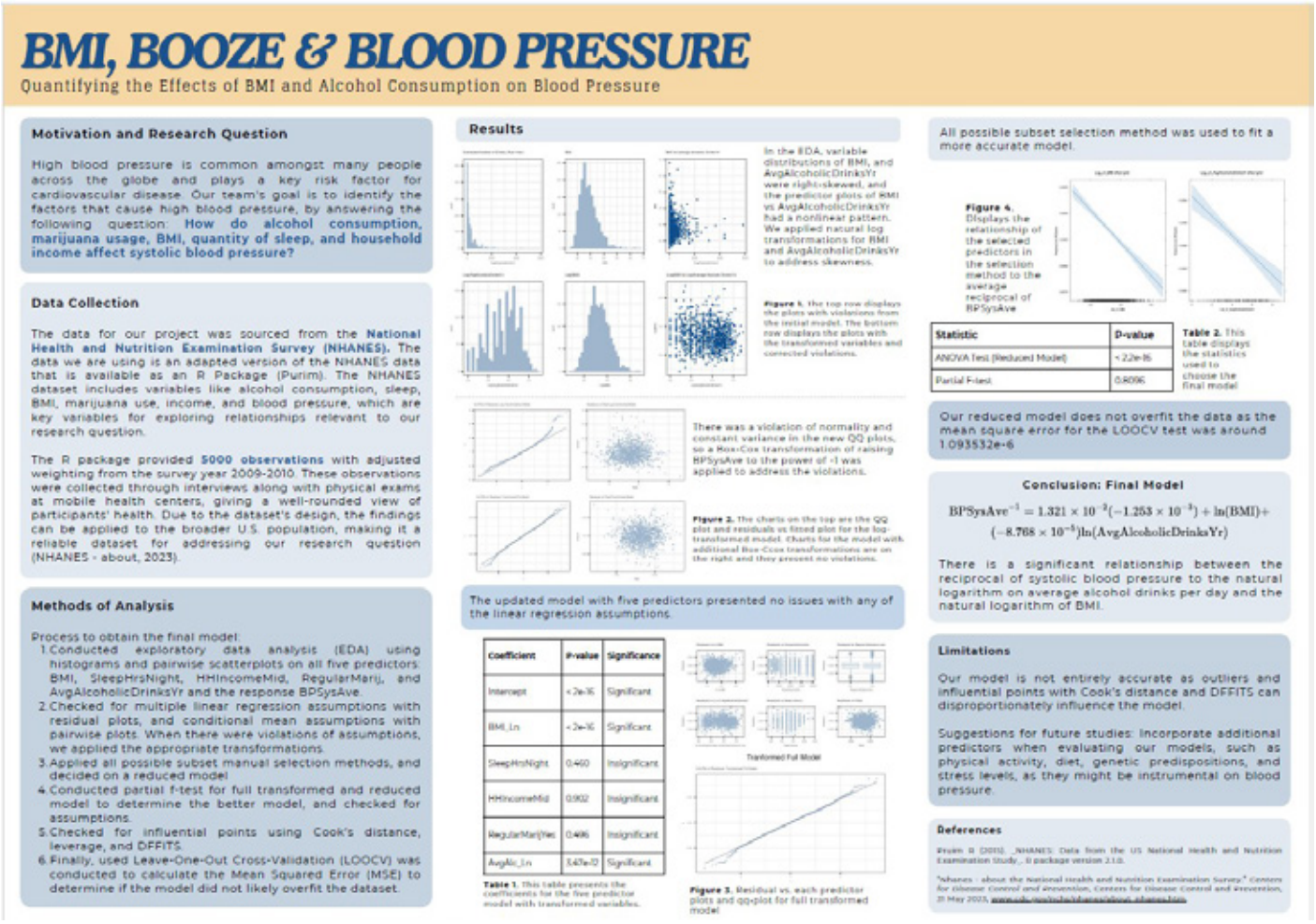
Can Statistical Analysis Help Me Arrive at School on Time?



Grade 10-12 category:
A Study on Improving Interactions with Neurodiverent Individuals: Awareness, Volunteer Experiences, and Practical Approaches

impressed that Brendan's data collection and display of his analysis using advanced R language visualization tools.

In the **Grade 10-12 category, Justin Ha** from St. George's School in Vancouver won **first** prize ($500) with the poster "A Study on Improving Interactions with Neurodiverent Individuals: Awareness, Volunteer Experiences, and Practical Approaches" whose interesting question, broad survey scope and informative displays of descriptive statistics addressed a topical issue in accessibility. In the same category, **Nicholas Kmita** from Franco-Cite High School in Ottawa, placed **second** ($300) with the poster "On the relation between Tags and Racing Paths of Trackmania Nations Forever Maps using Classification Methods". Kudos for implementing machine learning ideas at the secondary school level! The **third** place ($200) winner is **Jason Chung** from Grandview Heights Secondary School in Surrey, British Columbia with the poster "Does Raising the Minimum Wage Really Affect Unemployment?" whose use of linear regression analysis and graphical displays provides insights into an important economic question.



Bachelor's level:
BMI, Booze and Blood Pressure: Quantifying the Effects of BMI and Alcohol Consumption on Blood Pressure

At the **bachelor's level**, the **first** place ($1,000) winner is the team of **Afra Azad, Faiza Chowdhury**, and **Daniel Puente Cavazo** from the University of Toronto with the poster "BMI, Booze and Blood Pressure: Quantifying the Effects of BMI and Alcohol Consumption on Blood Pressure". Judges found the first-place poster to be a clear overall presentation and implementation of regression analysis in an epidemiological problem. **Thinuri Welithotage** from the University of Toronto was the **second**-place winner ($600) with the poster "Correlations between loneliness and older age". The **third**-place winners ($400) were **Braedon Petz, Austin Lau** and **Louis Kunstmann** from the University of Calgary with the poster "Red or Blue: Socioeconomic Factors Influencing a State's Political Alignment: An Exploration on American States' Voting Behaviour Using Regression Analysis". The judges found these last two poster questions especially interesting, relevant and well presented.

The judging criteria used for the Canadian competition matched the international ISLP competition judging criteria. For more information about the national competition, visit the Canadian ISLP competition website at https://islp.ssc.ca.
The SEC gratefully acknowledges support from the following sponsors: Statistical Society of Canada (SSC), Canadian Statistical Sciences Institute (CANSSI), and Canadian Mathematical Society (CMS).

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Finland

Finland encourages statistical thinking through poster competition:

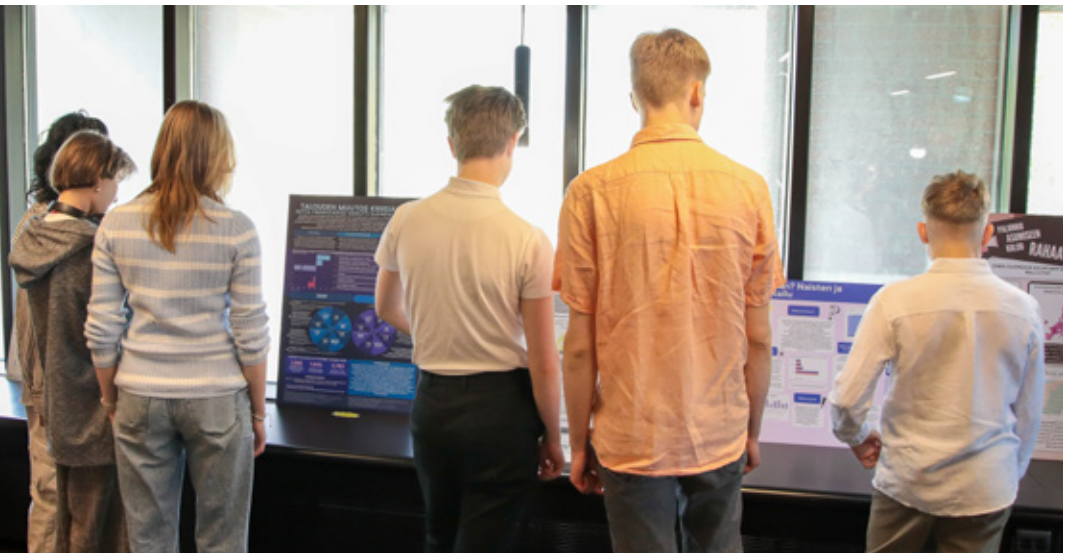
8th round of ISLP celebrations

Heli Korhonen*, Photos: Aki Harju**

Finland continues to foster statistical literacy among young learners through the International Statistical Literacy Project (ISLP). We have a strong tradition of participation, with several teams receiving international recognition over the years. A key driving force behind this success is ISLP Director Reija Helenius, who co-founded the contest together with Helen MacGillivray.

"Ivesting in young people means investing in the future. Statistical literacy is a vital civic skill in today's world—essential both in everyday decision-making and in professional life. The ISLP initiative, as well as Statistics Finland, have been working consistently over the years to promote statistical literacy and the ability to use statistics among youth.

What an awards ceremony feeling in Helsinki!



Tell us a story using statistical methods!

The theme for the recent season was "**Economy in its various forms.**" This season was part of the initiative Understanding the Economy and the National Financial Literacy Network. The network supports Finland's national financial literacy strategy, which aims to raise Finns' financial skills to the highest global level by 2030.

In addition to economic topics, the submitted posters explored a wide range of issues—from environmental concerns to social trends—demonstrating students' ability to apply statistical thinking to real-world challenges.

Support and resources for schools

The competition season was launched early, in February 2024, giving teachers plenty of time to engage their students. The final deadline for poster submissions was set for March 2025, allowing participation to be integrated flexibly into both spring and autumn semester teaching. Creating statistical posters can serve as an effective method for teaching statistics and can also be combined with other subjects through phenomenon-based learning.

We included four categories:

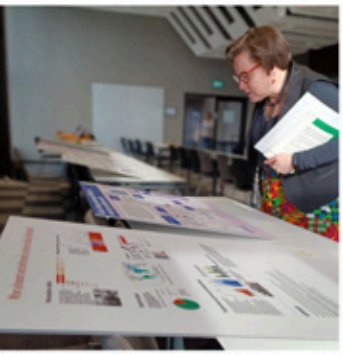
- Primary school
- Lower secondary school
- Upper secondary and vocational school
- Students pursuing a lower university degree at universities or universities of applied sciences

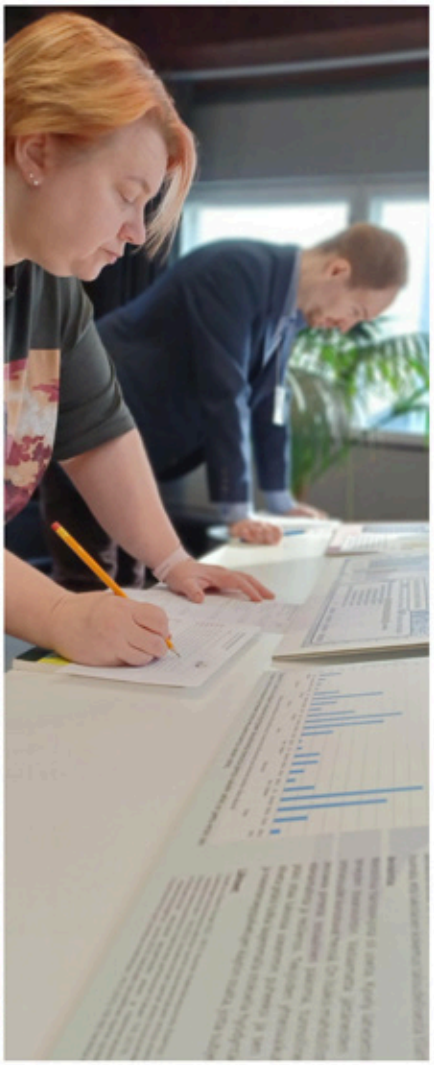
This was the first time that primary schools had their own dedicated category.

To make participation as smooth as possible, Statistics Finland provides comprehensive materials including guidelines, examples of past posters, and tips for teachers. Schools were encouraged to integrate the competition into their curriculum, often combining it with mathematics, social studies, or science projects.

How to reach young people?

Reaching our target audience relies on marketing and close cooperation with relevant partners. In Finland, the contest is organized in cooperation with the Finnish Statistical Society and the Finnish Association for Teachers of Mathematics, Physics, Chemistry and Informatics (MAOL).



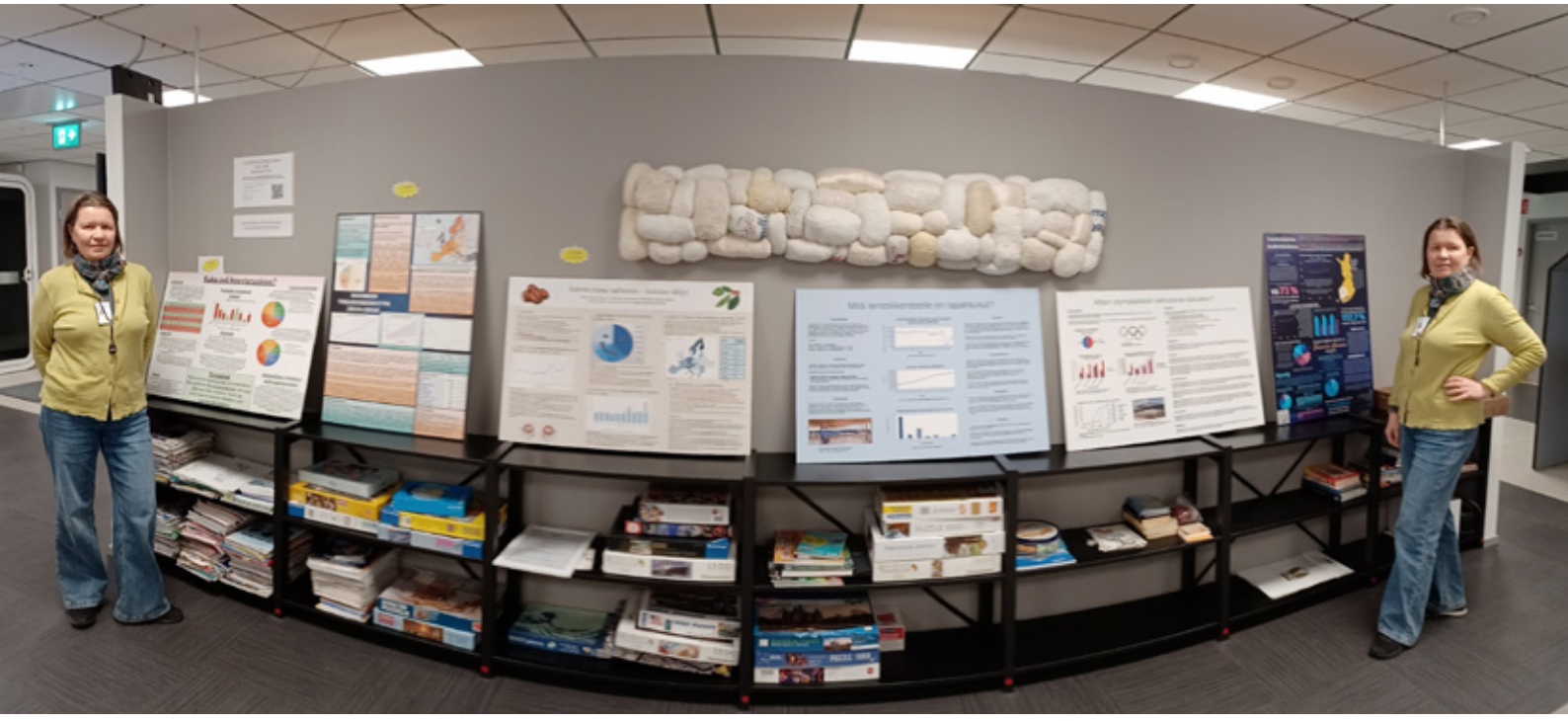


Promotion also targets subject teacher associations—not only mathematics teachers, but also teachers of history, geography, and biology, who are important audiences for integrating statistical thinking into their subjects. We also actively participate in various teacher conferences to raise awareness and encourage involvement.

Promotional activities for the statistical poster competition are closely aligned with the European Statistics Competition (ESC), which Finland has participated in every year. A dedicated steering group meets regularly to monitor progress and guide the project. This group includes experts in education, communications, and event organization.

After the jury selected the top five posters in each category, they were showcased to colleagues at Statistics Finland.

Photos and presenters:
Country coordinators Leena and Heli.



Registrations from 29 educational institutions and 500 students

A total of 29 educational institutions registered for the competition, and according to teachers, around 500 students practiced making posters. Eventually, 19 institutions submitted entries, resulting in 70 participating teams. Unfortunately, no submissions were received from primary schools—despite one enthusiastic preschool team expressing interest. Perhaps a new category is needed for the next season!

Here are the figures by each category:

- lower secondary schools: 51
- upper secondary school and vocational institutions: 17
- universities: 2

All posters were submitted digitally, although traditional postal delivery was also an option. We learned that for digital submissions, it's important to provide participants with detailed guidance—such as instructions on file formats and poster dimensions—to ensure the best possible print quality.

Once schools had selected the best entries from their own students, a preliminary jury evaluated which posters would proceed to the final round. The preliminary review was conducted via Teams, with two panelists giving "yes" or "no" votes to each candidate. After the selection, 33 finalist posters were sent to print:

- lower secondary school category: 20
- upper secondary school and vocational institution category: 11
- university category: 2.

The national jury met in person to select the five best entries in each category. The jury was composed of experts in statistics, education, and visual communication. Posters were evaluated based on three key criteria: statistical content, clarity of communication, and creativity. Each aspect was scored separately, and the average score determined the final ranking.

After the evaluation, all participants received their scores by email, and the top five posters in each category were provided with written feedback as well.

After the jury selected the top five posters in each category, they were showcased to colleagues at Statistics Finland.

Celebrations set place in May

The competition season was highlighted in an awards ceremony in May. It was held at Statistics Finland's head office in Helsinki. This year, along with the ISLP Poster Competition we had the honor to celebrate the winners of European Statistics Competition (ESC) as well.

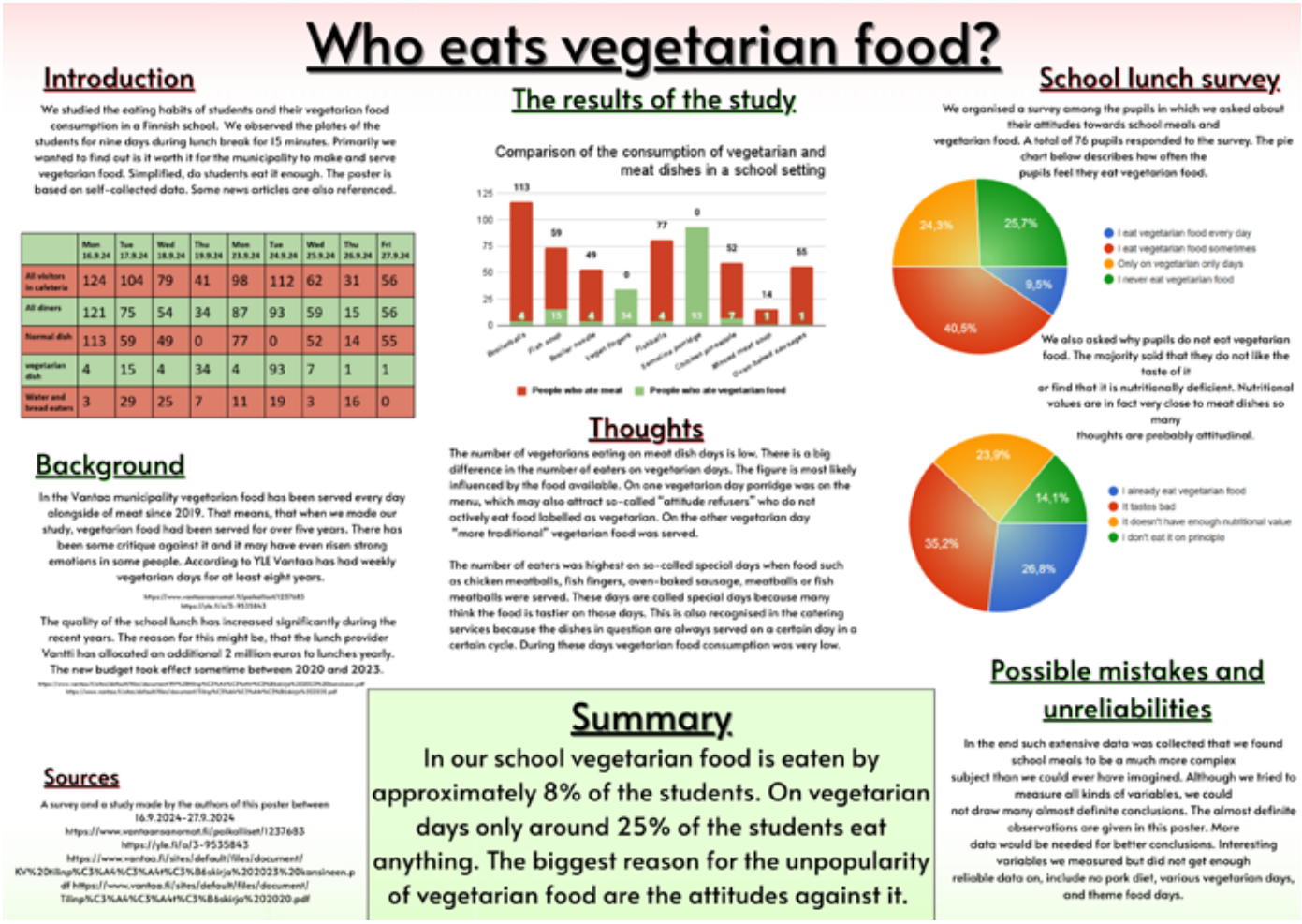
Around 50 guests filled the auditorium, including winning teams, their teachers, and key collaborators. Top three teams in each category were rewarded with monetary prizes. We had the pleasure of hearing speeches from the Deputy Director General Ville Vertanen and the Chair of the National Jury Katri Soinne.

Both winner teams were from capital region schools. In the lower secondary school category winners were from Koivukylä Lower Secondary School in Vantaa. In the upper secondary school category, the winning team came from Ressu Upper Secondary School in Helsinki. In the university and university of applied sciences category, only an honorable mention was awarded this year.

"I had the freedom to conduct research on a topic that resonated with me, and I got a taste of academic research," says Aleksi Laitinen from Ressu Upper Secondary School. Aleksi's topic was

Spotlight time for Team Koivukylä!
Team members: Väinö Inkinen, Kasper Rantanen and Arttu Leppänen. Guiding teacher Eeli Tamminen.

Winner's thoughts on the poster-making journey in upper secondary school category.
Team: Aleksi Laitinen. Guiding teacher: Janne Karisto



	Mon 16.9.24	Tue 17.9.24	Wed 18.9.24	Thu 19.9.24	Mon 23.9.24	Tue 24.9.24	Wed 25.9.24	Thu 26.9.24	Fri 27.9.24
All visitors in cafeteria	124	104	79	41	98	112	62	31	56
All diners	121	75	54	34	87	93	59	15	56
Normal dish	113	59	49	0	77	0	52	14	55
vegetarian dish	4	15	4	34	4	93	7	1	1
Water and bread eaters	3	29	25	7	11	19	3	16	0

1st place in lower secondary school category: Who Eats Vegetarian Food?
(Koivukylä Lower Secondary School in Vantaa)

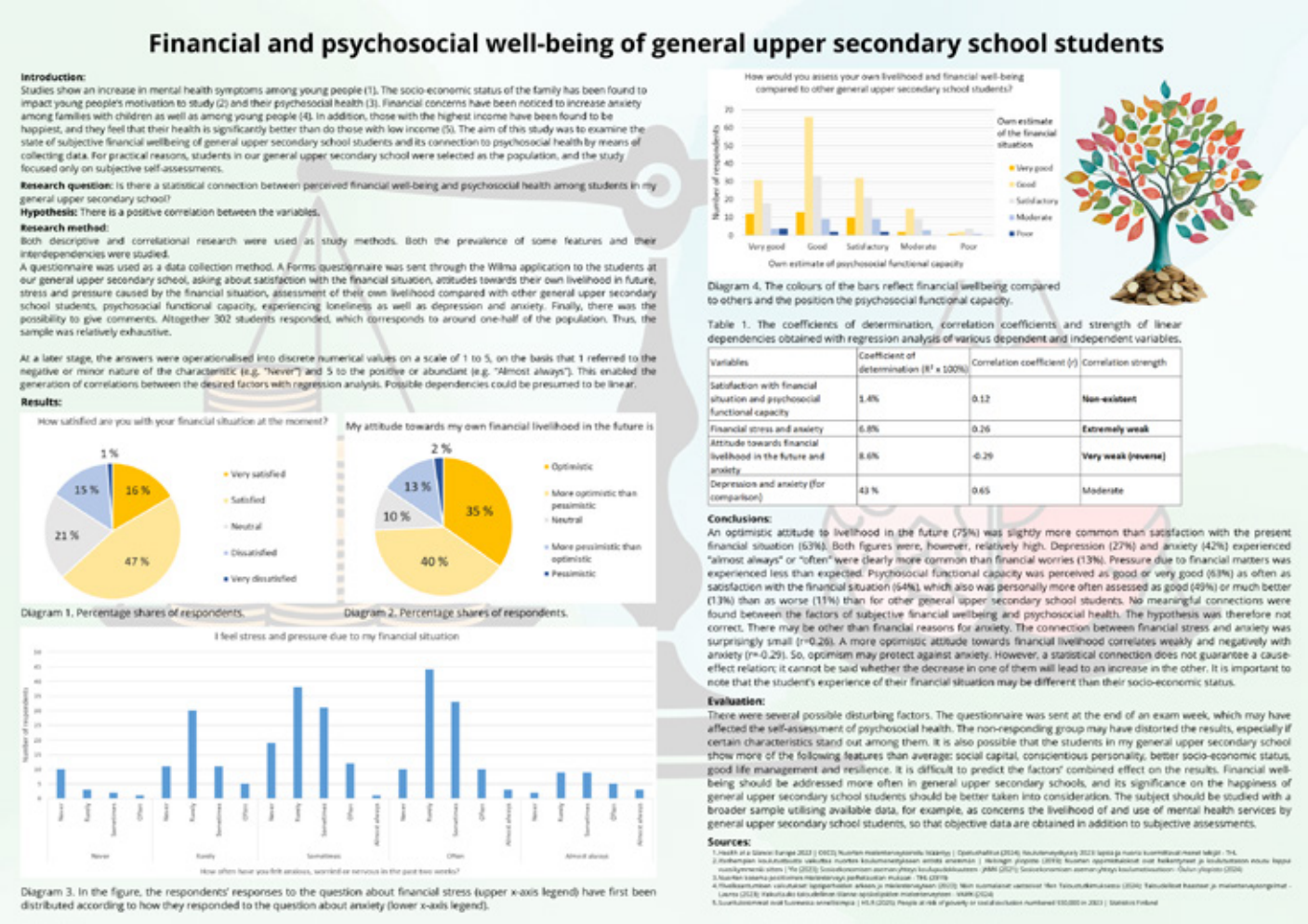
the economic and psychosocial well-being of upper secondary school students.

The Vantaa team's poster focused on vegetarianism, while the Helsinki team explored economic and psychosocial well-being among upper secondary students. These two teams will represent Finland in the international phase of the competition. The winners will be announced during the 65th World Statistical Congress (ISI WSC) in October.

After the official ceremony, we continued the celebrations with a fancy buffet meal. It was a joyful and relaxed moment to celebrate the students' achievements and connect with each other in a more informal setting.

Praise and compliments from teachers

The ISLP Poster Competition is more than just a contest—it's a celebration of statistical literacy, creativity, and collaboration. Teachers have praised the competition for its interdisciplinary approach, combining mathematics, social studies, and communication skills. It also supports the Finnish national curriculum's emphasis on inquiry-based learning and digital literacy. The competition invites students to explore real-world phenomena using data and to present their findings in the form of a compelling statistical poster.



Financial and psychosocial well-being of general upper secondary school students

Introduction:
Studies show an increase in mental health symptoms among young people (1). The socio-economic status of the family has been found to impact young people's motivation to study (2) and their psychosocial health (3). Financial concerns have been noticed to increase anxiety among families with children as well as among young people (4). In addition, those with the highest income have been found to be happiest, and they feel that their health is significantly better than do those with low income (5). The aim of this study was to examine the state of subjective financial wellbeing of general upper secondary school students and its connection to psychosocial health by means of collecting data. For practical reasons, students in our general upper secondary school were selected as the population, and the study focused only on subjective self-assessments.

Research question: Is there a statistical connection between perceived financial well-being and psychosocial health among students in my general upper secondary school?
Hypothesis: There is a positive correlation between the variables.
Research method:
Both descriptive and correlational research were used as study methods. Both the prevalence of some features and their interdependencies were studied.
A questionnaire was used as a data collection method. A Forms questionnaire was sent through the Wilma application to the students at our general upper secondary school, asking about satisfaction with the financial situation, attitudes towards their own livelihood in future, stress and pressure caused by the financial situation, assessment of their own livelihood compared with other general upper secondary school students, psychosocial functional capacity, experiencing loneliness as well as depression and anxiety. Finally, there was the possibility to give comments. Altogether 302 students responded, which corresponds to around one-half of the population. Thus, the sample was relatively exhaustive.

At a later stage, the answers were operationalised into discrete numerical values on a scale of 1 to 5, on the basis that 1 referred to the negative or minor nature of the characteristic (e.g. "Never") and 5 to the positive or abundant (e.g. "Almost always"). This enabled the generation of correlations between the desired factors with regression analysis. Possible dependencies could be presumed to be linear.

Results:

Diagram 1. Percentage shares of respondents.

Diagram 2. Percentage shares of respondents.

Diagram 3. In the figure, the respondents' responses to the question about financial stress (upper x-axis legend) have first been distributed according to how they responded to the question about anxiety (lower x-axis legend).

Diagram 4. The colours of the bars reflect financial wellbeing compared to others and the position the psychosocial functional capacity.

Table 1. The coefficients of determination, correlation coefficients and strength of linear dependencies obtained with regression analysis of various dependent and independent variables.

Variables	Coefficient of determination (R^2 x 100%)	Correlation coefficient (r)	Correlation strength
Satisfaction with financial situation and psychosocial functional capacity	1.4%	0.12	**Non-existent**
Financial stress and anxiety	6.8%	0.26	**Extremely weak**
Attitude towards financial livelihood in the future and anxiety	8.6%	-0.29	**Very weak (reverse)**
Depression and anxiety (for comparison)	43 %	0.65	**Moderate**

Conclusions:
An optimistic attitude to livelihood in the future (75%) was slightly more common than satisfaction with the present financial situation (63%). Both figures were, however, relatively high. Depression (27%) and anxiety (42%) experienced "almost always" or "often" were clearly more common than financial worries (13%). Pressure due to financial matters was experienced less than expected. Psychosocial functional capacity was perceived as good or very good (63%) as often as satisfaction with the financial situation (64%), which also was personally more often assessed as good (49%) or much better (13%) than as worse (11%) than for other general upper secondary school students. No meaningful connections were found between the factors of subjective financial wellbeing and psychosocial health. The hypothesis was therefore not correct. There may be other than financial reasons for anxiety. The connection between financial stress and anxiety was surprisingly small (r=0.26). A more optimistic attitude towards financial livelihood correlates weakly and negatively with anxiety (r=-0.29). So, optimism may protect against anxiety. However, a statistical connection does not guarantee a cause-effect relation; it cannot be said whether the decrease in one of them will lead to an increase in the other. It is important to note that the student's experience of their financial situation may be different than their socio-economic status.

Evaluation:
There were several possible disturbing factors. The questionnaire was sent at the end of an exam week, which may have affected the self-assessment of psychosocial health. The non-responding group may have distorted the results, especially if certain characteristics stand out among them. It is also possible that the students in my general upper secondary school show more of the following features than average: social capital, conscientious personality, better socio-economic status, good life management and resilience. It is difficult to predict the factors' combined effect on the results. Financial well-being should be addressed more often in general upper secondary schools, and its significance on the happiness of general upper secondary school students should be better taken into consideration. The subject should be studied with a broader sample utilising available data, for example, as concerns the livelihood of and use of mental health services by general upper secondary school students, so that objective data are obtained in addition to subjective assessments.

Sources:

1st place in upper secondary schools category: Financial and psychological well-being of general upper secondary school students (Ressu Upper Secondary School in Helsinki)

ISLP Director Reija Helenius giving thanks in awards ceremony:

> "ISLP also aims to encourage more countries to participate in the competition. When the competition was first launched, there were around 5 000 participants worldwide. Today, the number has grown to over 20 000, with the 2024–2025 competition including participants from more than 30 countries."

For more information, visit (only in Finnish):
Poster Competition home site / Statistics Finland

Finnish National Results of the ISLP Poster Competition 2024–2025

Country Coordinators:
Heli Korhonen
Leena Aulaskari

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Ecuador

Ecuador en el Concurso de Pósters Estadísticos del ISLP

Gabriela Castro*

El Concurso de Pósters del ISLP es organizado en Ecuador por la **Sociedad Ecuatoriana de Estadística.** En nuestro concurso nacional participaron 156 estudiantes de diferentes instituciones educativas.

Como preparación, organizamos una **capacitación de 4 horas** dirigida a los equipos, donde abordamos temas como:

- Cómo elaborar un póster científico
- Cómo diseñar gráficos impactantes
- Fundamentos de estadística aplicados a la investigación

Con el tema **"Datos, redes sociales y el poder de la IA"**, los equipos demostraron creatividad, pensamiento crítico y un gran compromiso con la estadística como herramienta para comprender el mundo actual.

Estos fueron los equipos ganadores:
Categoría 8vo a 10mo de básica
Unidad Educativa William Shakespeare
Prof. Jordan Flores
Estudiantes: Juan José Izurieta, Nicolás Almeida, Montserrat Lozada, Valentina Vargas

Categoría Bachillerato
Unidad Educativa Particular Redemptio
Prof. Yesenia Sornoza Alemdariz
Estudiantes: Andreina Merchan, Christopher Cobos, Saul Choez, Kalil Mera, Mya Katiuska Plaza

Categoría Universitaria
Pontificia Universidad Católica del Ecuador
Prof. Andrés Merino
Estudiantes: Gabriela Cárdenas, Ana Hidalgo, Kevin Delgado, Juan Andrade

Además, realizamos un **evento de premiación** en el que participaron estudiantes, docentes y padres de familia de los equipos ganadores, celebrando juntos este logro académico.

Para la **Sociedad Ecuatoriana de Estadística,** es un honor y una gran responsabilidad llevar a cabo este concurso, pues uno de nuestros principales objetivos es fomentar la cultura y la alfabetización estadística en el país.

* Presidenta,
Sociedad Ecuatoriana de Estadística
see.ecuador2@gmail.com


POSTER
COMPETITION
ISLP
GANADORES
CONCURSO DE POSTERS ISLP
Datos, redes sociales y el poder de la IA
SOCIEDAD
ECUATORIANA
ESTADÍSTICA
CLATSE
XVI
PUCE

Uruguay

Uruguay participó por primera vez en el Concurso Mundial de Posters Estadísticos

Proyecto Internacional de Alfabetización Estadística ISLP International Statistical Literacy Proyect

Ana Coimbra*

En 2024, Uruguay se unió por primera vez al *Concurso Mundial de Posters Estadísticos* organizado por el ISLP. La actividad se desarrolló en el marco de las **VIII Jornadas Nacionales de Estadística**, realizadas el 8 y 9 de noviembre de 2024 en Montevideo.

Para esta primera edición nacional, el concurso contó con su propia identidad visual y difusión a través de afiches, así como de un espacio específico en la página web de la Sociedad Uruguaya de Estadística (SUE), donde se puso a disposición un documento con la información detallada y un formulario de inscripción en línea.

La convocatoria reunió a **siete estudiantes universitarios** y **dos docentes tutores**, quienes presentaron **dos posters**. El jurado estuvo integrado por **Adriana D'Amelio**, integrante del Comité Ejecutivo ISLP, **Alejandra Marroig** e **Inés Urretarazu**, ambas docentes del Departamento de Métodos Cuantitativos de la Facultad de Ciencias Económicas y de Administración (DMC-FCEA), Universidad de la República. Cada una de ellas recibió los posters de manera anonimizada junto con la grilla de evaluación, garantizando un proceso transparente.

Los resultados se anunciaron en la **ceremonia de clausura de las VIII Jornadas Nacionales de Estadística**, donde se destacó la calidad de las propuestas y el entusiasmo de los equipos participantes.

Esta primera experiencia marca un paso importante en la promoción de la cultura estadística en Uruguay y sienta las bases para seguir consolidando la participación del país en futuras ediciones del concurso internacional.

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Belgium

Enhancing statistical literacy in Belgium:

Innovations in Statbel Academy and classroom engagement

Kelly Sabbe*

In today's data-driven world, national statistical institutes have a responsibility that extends far beyond data production and dissemination. They are pivotal actors in the development of statistical literacy —the ability to understand, interpret and critically evaluate data and statistics— in all layers of society.

Statistics Belgium (Statbel, the Belgian Statistical Office) has embraced this role wholeheartedly. Through its dedicated educational platform, Statbel Academy, and a host of supplementary initiatives, Statbel aims to cultivate data-literate citizens, starting from the early years of education.

Statistical information influences decisions at all levels of society, from governmental policy to personal finance and healthcare. Equipping children and young people with the skills to interpret data accurately is therefore essential. This is where Statbel's educational outreach comes into play: it transforms public statistics into accessible learning experiences, making them relevant, engaging, and empowering.

Statbel Academy: A comprehensive educational platform

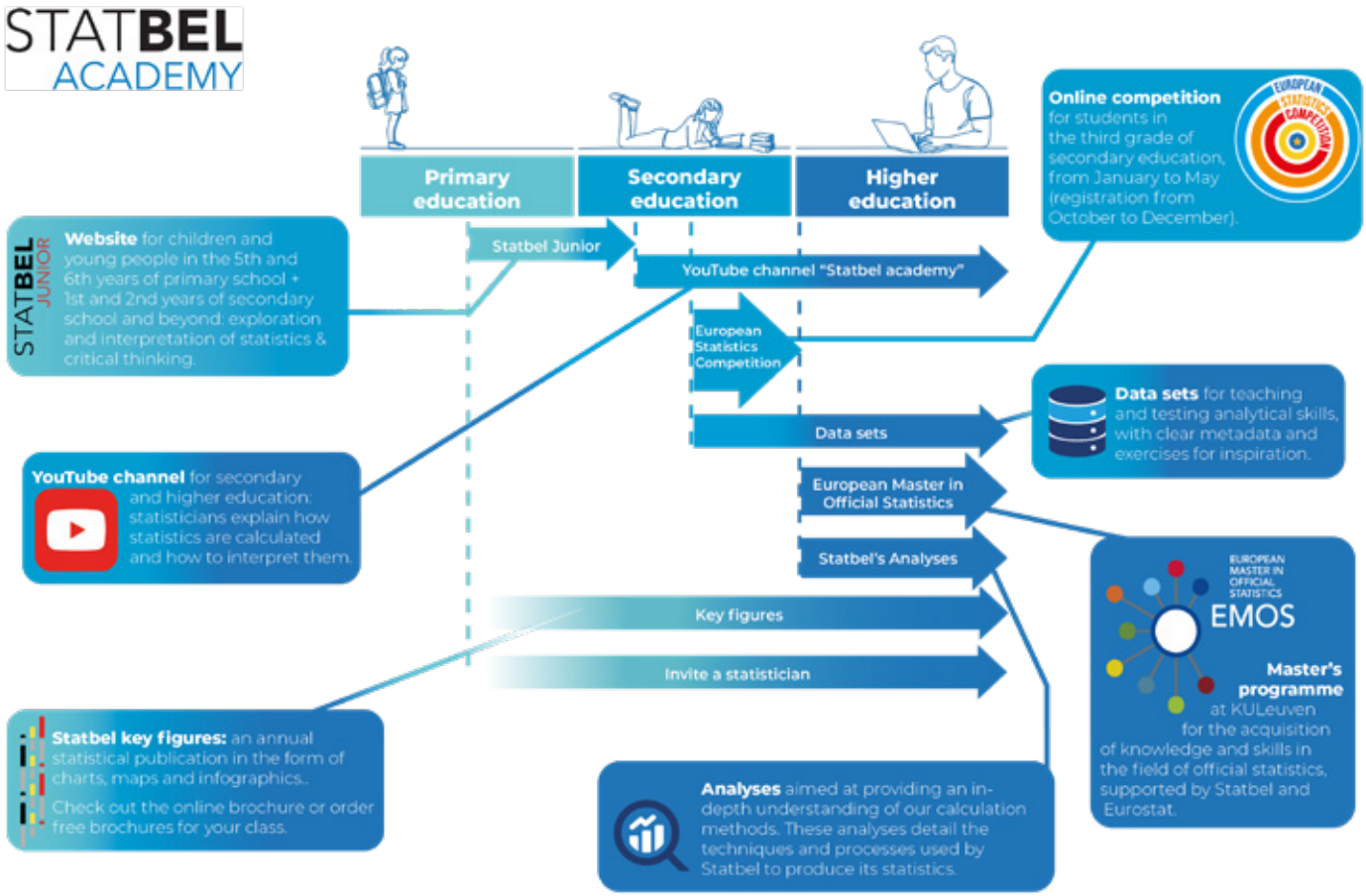
Statbel Academy functions as a central hub for teachers and students in primary, secondary, and higher education. It offers a growing selection of ready-to-use resources, including thematic datasets, interactive exercises, and materials aligned with curriculum objectives. All resources are freely accessible and pedagogically designed to introduce statistical reasoning using real-world data.

Recent updates include new content formats, such as video tutorials, and diversified dissemination methods via social media and digital platforms, ensuring broad and easy access. Educators are also supported directly, through guidance in integrating statistics into their teaching practice.

Website: www.statbelacademy.be

STATBEL ACADEMY

Bring statistics to the classroom!



STATBEL JUNIOR

Statbel Junior

Statbel Junior is a digital platform aimed at pupils in the final years of primary school and the early years of secondary school. It introduces statistics through two simple inputs —municipality and age— providing access to data on topics like population, agriculture, traffic accidents, and nationalities.

A major upcoming update involves the introduction of additional thematic quiz questions across all content areas. These will allow learners to revisit core topics from multiple angles, fostering both engagement and deeper comprehension.

The update is part of an ongoing effort to adapt the platform based on classroom feedback and emerging didactic needs.

Teachers can also request in-class visits from Statbel statisticians, offering students a unique opportunity to explore real-world statistics and discuss how data shapes public policy and social understanding. Tailored sessions may include guided explorations of national datasets relevant to students' curricula.

Website: www.statbeljunior.be

YouTube channel “Statbel Academy”

The @StatbelAcademy YouTube channel supplements classroom learning with clear, concise explanations of how statistics are calculated and interpreted. Videos cover topics such as life expectancy, population trends, and causes of death, with Statbel statisticians providing behind-the-scenes insights.

Educators can use these materials as standalone resources or integrate them into broader teaching units. The channel has recently expanded with subtitled content, playlists per topic, and links to exercises from Statbel Academy.

YouTube:
https://www.youtube.com/@StatbelAcademy

Statistics Competition: Innovation driven by teacher feedback

Statbel’s annual Statistics Competition continues to evolve, thanks in large part to structured feedback gathered from participating educators.

- For the 2025–2026 edition, Statbel is introducing a revised competition structure for the third grade of secondary education (fifth and sixth years).
- Responding to teacher suggestions, two tailored participation pathways will be offered. This differentiation ensures greater alignment with diverse educational contexts and student profiles.
  - σ- pathway: > 5 hours of mathematics
  - ϖ-pathway: ≥ 5 hours of mathematics
- Another key improvement relates to the competition timeline. Starting next year, the schedule will be adjusted to better align with the school holiday periods in all regions of Belgium.

This should facilitate greater participation and allow teachers and students to engage with the competition material at a more convenient pace throughout the academic year.

All materials from the first round of the 2024–2025 edition are already available online and bundled for ease of access. Statbel is currently digitizing and converting materials from previous editions into interactive learning formats. These will offer teachers a rich resource base for use in the classroom year-round.

Competition website:
www.statisticscompetition.be

Subscribe to updates (also available in English!):
Statistics Competition Newsletter

Datasets to work with

Statbel offers free thematic datasets designed for educational use, accompanied by metadata and context notes. Teachers can use them to practice analysis, comparison, and interpretation with students across a variety of themes, including demography, labor, and housing.

Statbel is working to make these datasets more dynamic and adaptable, with recent updates including ready-made exercises and metadata interpretation guides. Quizzes linked to dataset content are also being tested on Statbel Junior.

European Master in Official Statistics (EMOS)

Statbel collaborates with KU Leuven in the EMOS program to equip master's students with the skills and experience required to work in the field of official statistics. The program offers theoretical and methodological training combined with practical internships at Statbel or partner institutions.

Recent enhancements to EMOS include more project-based assignments and interactive seminars delivered by professionals from the statistical field, fostering a smoother transition to employment.

Statbel analyses

To increase transparency, Statbel publishes analytical notes that explain how its statistics are produced. These documents focus on sampling strategies, statistical techniques, and interpretation challenges. Topics range from inflation measurement to mortality statistics.

The latest updates include visual aids and annotated examples, which can be used as advanced teaching materials in higher education.

Key figures and Key figures on agriculture

Every year, Statbel publishes the Key Figures and Key Figures on Agriculture brochures. These publications provide an overview of Belgian society using infographics and statistics covering demography, labor market trends, social indicators, and agricultural developments.

They are available both digitally and in print, free of charge, and can be ordered for classroom use. Teachers benefit from topic guides that link the figures to lesson plans, while students can use them as references in assignments.

Conclusion: Statistics as a language of the future

Statbel's commitment to statistical literacy is a long-term investment in Belgium's data-driven future. By integrating public data into education through intuitive tools, teacher support, and hands-on experience, Statbel helps shape a new generation

that is not only statistically aware but also critically engaged.

From primary education students discovering their municipality's demographic trends, to master's students evaluating social indicators through EMOS, Statbel's initiatives demonstrate that statistics is more than a subject, it is a way of understanding the world.

Visibility and outreach

To ensure that its educational offerings reach the widest possible audience, Statbel actively promotes its platforms via multiple communication channels.

To further enhance the accessibility of official statistics for a wider audience, Statbel has launched a podcast series. Each episode explores a specific statistical topic, shedding light on how data are collected, processed, and used to inform policy and public understanding.

A new episode is released monthly and is available on all major podcast platforms. It offers an approachable and engaging way for the public and educators alike to better understand the relevance of statistics in everyday life. Please note that the podcast is currently only available in Dutch and French.

A dedicated LinkedIn showcase page, regular newsletters, and a central Linktree overview enable quick access to all resources and news.

Overview of platforms:

- Statbel Academy: www.statbelacademy.be
- Statbel Junior: www.statbeljunior.be
- Statistics Competition: www.statisticscompetition.be
- LinkedIn: www.linkedin.com/showcase/statbelacademy
- General overview and updates: Linktree

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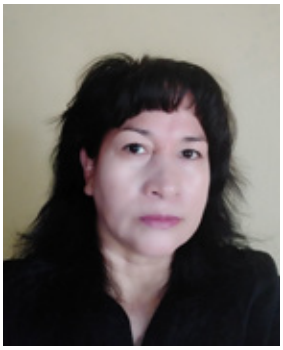
Peru Mexico




Análisis bibliométrico de la producción científica sobre alfabetización estadística

Yheni Farfán*, Hugo Hernández**

Introducción

La alfabetización estadística es una competencia esencial para que los individuos puedan comprender, interpretar y evaluar críticamente información basada en datos, aspecto fundamental para la formación académica y ciudadana (Sutherland et al., 2024). Esta habilidad es especialmente relevante para estudiantes y docentes, quienes enfrentan desafíos particulares en contextos educativos diversos.

Tran et al. (2023) analizaron cómo la participación de docentes en programas de desarrollo profesional mejora la planificación de clases para fomentar la competencia estadística, utilizando datos reales y principios constructivistas. Por otro lado, Gunawan et al. (2023) estudiaron el proceso de alfabetización estadística en futuros profesores de matemáticas mediante problemas tipo PISA, identificando diferencias según el nivel de habilidad y destacando la importancia de la orientación, interpretación y evaluación de datos.

En relación con la formación docente, otro estudio realizado en Kazajistán evidenció un bajo nivel de conocimiento estadístico en profesores de secundaria, aunque sus estudiantes mostraron resultados satisfactorios en estadística y matemáticas, lo que sugiere la necesidad de mejorar la formación docente en esta área (Gulzhaukhar et al. 2024). Finalmente, los autores Riwayani et al. (2024) encontraron que las habilidades de alfabetización estadística en estudiantes son bajas en general, con diferencias significativas según el campo educativo, lo que plantea la urgencia de estrategias pedagógicas que fortalezcan estas habilidades.

Este estudio realiza un análisis bibliométrico de la literatura científica sobre alfabetización estadística publicada entre 2017 y 2024, identificando tendencias emergentes, enfoques metodológicos predominantes y vacíos de investigación en el campo. A través de herramientas como VOSviewer, se examinan patrones temáticos y colaboraciones académicas, revelando clústeres clave como la integración tecnopedagógica,

la formación docente en competencias digitales y las aplicaciones prácticas en educación básica. El objetivo es ofrecer una visión crítica y actualizada del estado del conocimiento, orientando futuras investigaciones hacia el diseño de estrategias educativas innovadoras que fortalezcan las competencias estadísticas en estudiantes y docentes.

Metodología

Este estudio se basa en un análisis bibliométrico, un método que permite examinar patrones y tendencias en la producción científica mediante el mapeo de relaciones entre publicaciones (Leal Filho et al., 2024). Los datos se obtuvieron de Scopus, una de las bases de datos más exhaustivas en investigación académica, utilizando como palabras clave en inglés statistical *literacy, students & teachers.* Para refinar la búsqueda, se aplicaron filtros que incluyeron el rango temporal desde el año 2017 hasta el 2024 porque en este intervalo de tiempo hubo más publicaciones en este tema, así mismo se seleccionó exclusivamente artículos de investigación, actas de conferencias y capítulos de libros, lo que permitió obtener una muestra final de 234 documentos indexados (Shobikhuh et al., 2025). Posteriormente, estos datos se procesaron en VOSviewer (van Eck & Waltman, 2014), un software especializado en análisis de redes bibliométricas desarrollado por la Universidad de Leiden, que posibilita la visualización de relaciones temáticas y colaboraciones entre autores, instituciones o términos clave. A partir de este análisis, se construyó una red bibliométrica de co – ocurrencias con un número mínimo de ocurrencias por palabra clave de 5 de un total de 1253 palabras clave y 42 palabras clave en la red. Así mismo, se unieron palabras que representaban la misma definición, llegándose a obtener 3 clústeres, los que fueron categorizados y nombrados en función de su contenido predominante, revelando las principales tendencias y enfoques en el estudio de la alfabetización estadística.

Resultados y discusión

Análisis bibliométrico mediante VOSviewer identificó tres clústeres temáticos principales (Fig. 1) en la literatura sobre alfabetización estadística, estos son:

El clúster 1 (color rojo), denominado: Integración tecnológica y formación, debido a que está conformado por los términos en inglés: artificial intelligence, currícula, digital literacies, e-learning, education, education computing, higher education, information literacy, learning systems, personnel training, pre-service teachers, primary education, scientific literacy, statistical literacy, statistics, students, teacher education, teachers, teaching. Este conjunto de palabras revela un enfoque en la convergencia entre tecnología avanzada y pedagogía, destacando cómo herramientas como la inteligencia artificial (artificial intelligence) y plataformas de aprendizaje en línea (e-learning) se integran en la formación docente (teacher training), especialmente en educación superior (higher education). Además, la combinación de statistical literacy (alfabetización estadística) con digital literacies (competencias digitales) sugiere que las investigaciones analizan cómo las habilidades estadísticas se enseñan y aplican en entornos tecnológicos, preparando a docentes y estudiantes para gestionar datos en contextos educativos y científicos.

Entre los estudios asociados a este clúster, se tiene a Xayavongsa et al. (2024), analizan los factores que influyen en la alfabetización digital de estudiantes en Laos, identificando seis predictores claves (apoyo familiar, influencia social, experiencia informática, competencia docente, facilidad de uso y utilidad percibida). El modelo explicó el 73.6% de la varianza (R = 0.860), destacando el impacto de entornos educativos y sociales. Los hallazgos subrayan la necesidad de políticas que fortalezcan la capacitación docente y el acceso tecnológico para mejorar la empleabilidad en la era digital.

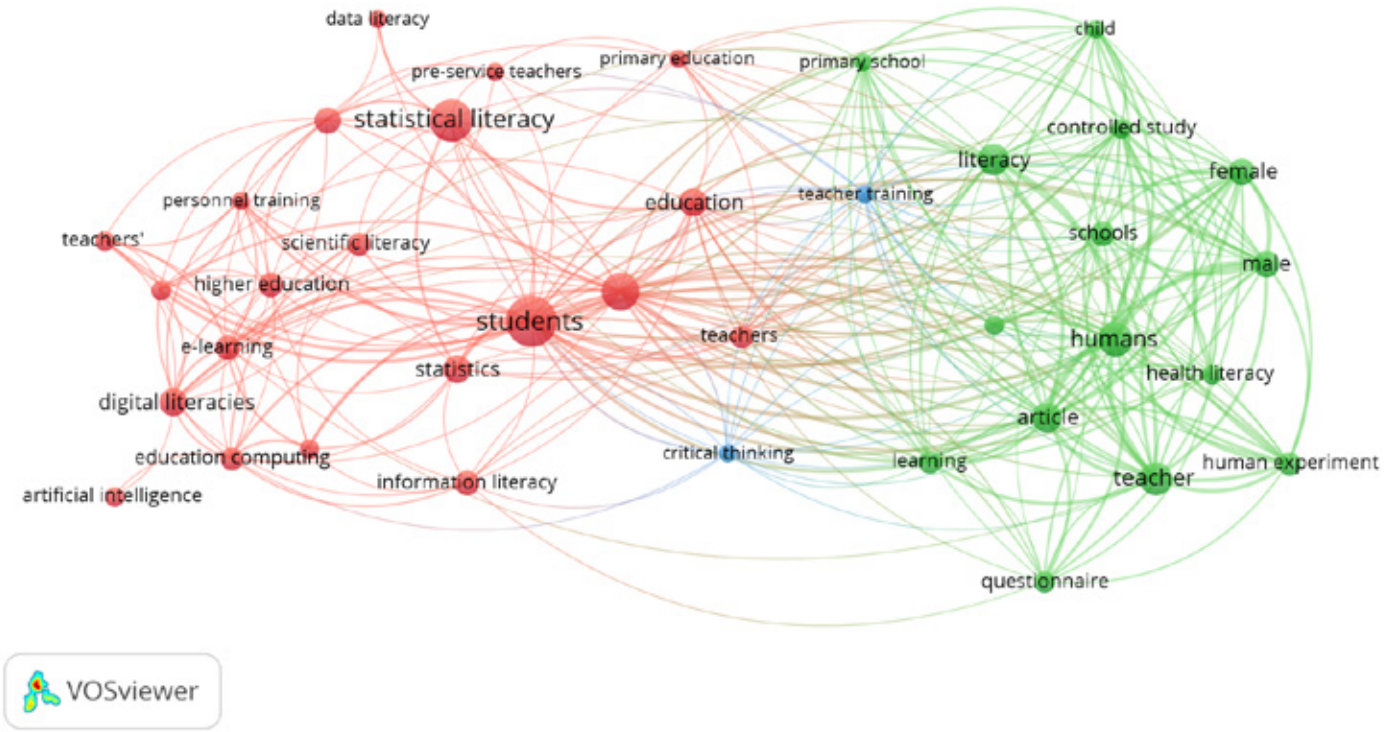


Fig 1. Red bibliométrica. Fuente: Elaboración propia

Peled et al. (2021) validaron un inventario de 54 indicadores de alfabetización digital para docentes en formación, usando modelado estructural y AMOS, confirmando un modelo multicapa con interconexiones positivas (validez estadística). Los hallazgos revelan su transición de inmigrantes a nativos digitales, urgente tras la COVID-19. El inventario permite evaluar su preparación digital periódicamente, facilitando ajustes pedagógicos para estándares institucionales.

En este mismo sentido el clúster 2 (color verde), denominado educación básica e investigación en salud, que agrupa los términos: article, child, controlled study, female, health literacy, human experiment, humans, literacy, male, primary school, professional development, questionnaire, schools, teacher. Estos términos reflejan una línea de investigación centrada en estudios empíricos aplicados a la educación primaria (primary school) y la salud pública. La inclusión de controlled study (estudio controlado) y questionnaire (cuestionario) indica un énfasis en metodologías cuantitativas para evaluar intervenciones educativas y sanitarias, especialmente en poblaciones infantiles (child). La presencia de health literacy (alfabetización en salud) junto a literacy (alfabetización general) sugiere que la investigación explora cómo la competencia estadística contribuye a la comprensión de temas de salud, vinculando así la educación básica con aplicaciones prácticas en bienestar social (Imran et al., 2022).

Y finalmente el clúster 3 (color azul): Pensamiento crítico y desarrollo docente, que está conformado por los términos critical thinking y teacher

training, se centra en la relación entre el desarrollo profesional docente y la promoción del pensamiento crítico. Aunque pequeño, es fundamental para entender cómo las investigaciones actuales priorizan la formación de docentes capaces de fomentar habilidades analíticas en estudiantes. La ausencia de términos adicionales en este grupo sugiere que, si bien el tema es crucial, requiere mayor exploración para integrarse con otras dimensiones, como la tecnología o la educación aplicada.

Un estudio relacionado al cluster 3, es de Remmik et al. (2024) quienes analizaron el uso y percepción de Wikipedia entre 381 estudiantes estonios, revelando que, aunque la usan como fuente principal, su empleo depende de la postura docente. Los alumnos valoran su accesibilidad, pero cuestionan su fiabilidad, necesitando mayor formación en alfabetización académica. Los hallazgos aportan al debate sobre Wikipedia como herramienta educativa innovadora en escuelas. En este mismo sentido, Fernández-Corbacho et al. (2024) demostraron que, intervenciones digitales basadas en pensamiento crítico mejoran la empatía etnocultural (*r* = 0.625) y reducen la ansiedad (*r* = 0.674) en futuros docentes que trabajan con migrantes. El análisis crítico de necesidades educativas y la creación de materiales multialfabetizados activaron habilidades cognitivas y socioemocionales clave. Estos hallazgos subrayan la urgencia de integrar estrategias crítico-digitales en la formación docente para abordar desafíos pedagógicos complejos

Los tres clústeres evidencian tres ejes principales en la investigación sobre alfabetización estadística: (1) tecnopedagogía, que prioriza el uso de herramientas digitales como la inteligencia artificial y plataformas de aprendizaje en línea para modernizar la enseñanza estadística; (2) educación básica e investigación en salud, donde métodos rigurosos como estudios controlados y cuestionarios evalúan el impacto de intervenciones educativas; y (3) Pensamiento crítico y desarrollo docente, enfocado en fomentar capacidades críticas y analíticas en los educadores. La conexión entre inteligencia artificial (clúster 1) y pensamiento crítico (clúster 3) sugiere un área emergente: cómo las tecnologías avanzadas pueden potenciar el pensamiento analítico en la formación docente. Este marco conceptual refleja un campo de investigación dinámico, donde la alfabetización estadística trasciende su rol disciplinar para erigirse como competencia transversal clave, integrando innovación tecnológica con aplicaciones sociales prioritarias (como la salud) y calidad pedagógica. Su carácter multifacético no solo la consolida como pilar de la era digital, sino como herramienta fundamental para construir sociedades críticas, capaces de interpretar datos, tomar decisiones basadas en evidencia y enfrentar desafíos globales con rigor científico.

Conclusiones

Este estudio bibliométrico identificó tres ejes centrales en la investigación sobre alfabetización estadística: 1) Tecnopedagogía, con trabajos como los de Xayavongsa et al. (2024) en Laos (R = 0.860) y Peled et al. (2021), que integran inteligencia artificial y plataformas digitales en la formación docente; 2) Educación básica y salud, enfocado en metodologías cuantitativas para evaluar intervenciones en educación primaria y alfabetización en salud; y 3) Pensamiento crítico, donde Remmik et al. (2024) y Fernández-Corbacho et al. (2024) destacan mejoras en empatía (*r* = 0.625) y reducción de ansiedad (*r* = 0.674) mediante intervenciones digitales.

La interconexión entre inteligencia artificial (Cluster 1) y pensamiento crítico (Cluster 3) sugiere que tecnologías avanzadas pueden potenciar habilidades analíticas en docentes, especialmente en contextos multiculturales. Estos hallazgos exigen políticas que integren herramientas digitales (ej: Wikipedia) en currículos docentes, prioricen evaluación estandarizada y acceso equitativo a tecnologías. Futuras investigaciones deben explorar cómo la IA personaliza la enseñanza estadística y su impacto en la salud pública.

La alfabetización estadística emerge como competencia transversal crítica, vinculando innovación tecnológica, aplicaciones sociales y desarrollo docente. Su integración en políticas educativas es esencial para construir sociedades críticas, capaces de interpretar datos y reducir brechas educativas, consolidándola como pilar indispensable en la era digital.

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Turkey

Building a statistical literate society:

A central bank perspective

Aycan Sultan OZEK*

Today, data plays a bigger role in our daily lives more than ever before. From business to the general public, many decisions are based on data; we rely on numbers to guide our choices not only in investments but also in our everyday life. In order to make accurate decisions we need to know how to use data and understand what they mean. This is where the concept of statistical literacy emerges. Traditionally, central banks, as known by the public, are the institutions which formulate the monetary policy and ensure financial stability. However, in today's data driven society, a new responsibility area of central banks emerged; enhancing statistical literacy in order to maintain trust in institutions, prevent misuse of information and enhance public understanding of data.

As strategies shifted from statistical production to robust communication of data served, proactive engagement with users, more visualization and simplification of outputs, using more social media presence have become essential for central banks as well. The Central Bank of the Republic of Türkiye (CBRT)'s Data Governance and Statistics Department (DGSD) has undertaken a proactive approach to improve statistical literacy among university students and media professionals through a series of seminars and training programs. These initiatives aim to foster a deeper understanding of official statistics, data interpretation, and the use of data in decision-making processes. The focus is on equipping participants with the essential statistical skills they will need in their academic and professional careers.

University seminars on statistical literacy

In 2025, CBRT organized several half-day seminars for students, primarily targeting those in the third or final year of their undergraduate studies, as well as graduate students and academic staff. The seminars were designed to enhance awareness of official statistics and contribute university students to become statistically literate just before they graduate and provide participants with the tools necessary for data-driven decision-making they will need when they start their career.

The key topics covered in these seminars included: Understanding official statistics; concepts of data and statistics, with a focus on the quality criteria of official statistics,

Data journey: A comprehensive overview of the entire process, from data collection to statistical output

Main official statistics published by CBRT; with an emphasis on interpreting the key messages behind these figures.

Universities can apply directly to DGSD or the education section of CBRT for general level official statistical understanding or specific areas of CBRT statistics to be explained. We usually receive offers from student associations which are effective channels to reach exact points of interest or directly from professors who are

aware of the need for statistical literacy. We invited them to CBRT premises, meeting our experts of DGSD.

In 2025, the CBRT's statistical literacy seminars designed for universities reached the following institutions: Business Administration and Economic Club of Gebze Technical University, Economy and Entrepreneurship Club of Marmara University, Sivas Cumhuriyet University and Yeditepe University. The seminars primarily engaged students from the Faculty of Economics and Administrative Sciences. For Gebze Technical University, the program was further enriched with modules on data visualization and data storytelling, with particular attention given to the potential misuse of data and statistics. These modules aimed to help students recognize common pitfalls in data interpretation and presentation.

Statistical literacy for media professionals

Recognizing the critical role that the media plays in shaping public understanding of monetary policies of CBRT, targeted training for media professionals is provided. The goal of these training sessions is to empower journalists with the tools they need to communicate economic and financial data effectively to the public, ensuring that the information provided is both accurate and accessible.

In 2025, a statistical literacy seminar will be held for the economics reporters of Anadolu News Agency (AA), focusing on how to accurately interpret and communicate official statistics. The seminar, held at AA's training center in Ankara, was broadcast live on YouTube to accommodate reporters from other cities. The content of this seminar closely mirrored the university seminars but also incorporated specific modules on writing accurate stories based on official statistics while preventing the misuse and misinterpretation of data. Also, a more detailed exploration of how to analyze and present statistical graphs and tables accurately is explained.

Training on EVDS: Empowering users with open data

In addition to these seminars, CBRT introduced training sessions on how to use its open data portal, namely Electronic Data Delivery System (EVDS). EVDS serves as a key tool for data-driven decision-making, offering access to over 45,000 time series related to the economy and financial markets. The portal is designed to be accessible to the general public, providing a comprehensive repository of data that supports evidence-based analysis and decision-making.

The training sessions on EVDS were structured to ensure participants could effectively navigate the platform via live exercises, understand its features, and utilize the data for various applications. The ongoing upgrade project for EVDS aims to improve its usability, making it easier for users to discover, understand, and apply the data available. Moreover, the new EVDS is planned to integrate data literacy training modules to support enhancing statistical literacy of the general public.

Future plans

The CBRT's efforts to enhance statistical literacy will continue to evolve in the coming years. The planned upgrades to EVDS and the integration of data literacy training modules into broader educational initiatives aim to further strengthen the statistical capabilities of the public. By engaging with students, academics, and media professionals, CBRT strives to enhance statistical literacy to create a well-informed society capable of making data-driven decisions.

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Finland

eOppiva digital course on Statistical Literacy for public sector employees in Finland

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Statistics Finland aims to promote statistical literacy and use of statistics among the widest possible audience in cooperation with educational institutions, promote positive public image, raise future data users and data providers as well as help to widen data dissemination. Despite these goals, the resources available for these purposes are very limited. No NSI employee is completely oriented towards this, but several experts participate in statistical literacy in different roles. We use approximately only 1-1.5 person years (2024 we had a total of 710 person years) per year for promoting statistical literacy in school visits, participation in educational events and arranging workshops there, organizing statistics competitions such as Statistics Poster Competition as well as Eurostat's Statistics Olympics. We are producing our own website, "Learn about statistics".

The bottleneck has been and still is that resources are directed to statistical production and there are negligible resources available for teaching literacy compared to the needs. We are trying to overcome this challenge by utilizing digital solutions in the dissemination of Statistical Literacy.

For implementation of the course, we teamed up with HAUS Finnish Institute of Public Management Ltd that produces digital learning courses for government personnel in collaboration with other government organizations. eOppiva is a shared digital learning environment for the government sector (82,000 people) with the goal of fostering accessible education for all. eOppiva's courses focus on changes and development in public administration, working life, and society.

The starting point in the planning of the course was that evidence-based policy making requires that government civil servants and other public sector decision-makers should be aware and make best use of existing statistical data in their own work, in their organizations and in society as a whole. Digital and social media have speeded up the use of data. These skills are now essential working life skills.

The training course includes the basics of science-based knowledge production and principles of statistical production systems, helps to recognize reliable statistical information, provides guides and tips for critical information evaluation and efficient information retrieval.

The identified and desired learning outcomes were:
1. You know what is meant by reliable information
2. You know how factual and statistical information is produced
3. You know what is meant by the ability to read and use statistics
4. You learn about the use of statistical information through examples

Our eOppiva course: From numbers to insights – develop your skills in reading and using statistics was launched May, 9th, 2025. The eOppiva course consists of four main elements: 1. What is reliable information?, 2. Who produces reliable information?, 3. What is statistical literacy? and 4. How agile information retrieval supports statistical literacy? Beside teaching material (texts and short videos) a lot of examples and exercises as well as additional information are provided. The course is available in Finnish and it is open to everyone. Completing the course takes 30-60 minutes. Developers and authors of the course are Ms. Reija Helenius, Dr. Jukka Hoffren, Ms: Marika Jokinen, Ms. Satu Elho, Ms: Leena Storgårds and Ms. Katriina Tiainen.

Today, very little time has passed since the training was published, and there is very little feedback at this stage. However, early data shows that 58 people have started taking the training and the open feedback messages are positive.

As a next step we have an idea to provide a statistical literacy course to University of Helsinki students (especially economics and social sciences students) i.e. future decision-makers studies. Motivation comes from the fact that statistical literacy should be a part of the studies of all university students. In collaboration with the University of Helsinki DataLit project, we have discussed making statistical literacy a digital MOOC eOppiva course.

This can be done by producing a digital learning course to University of Helsinki students as a MOOC (Massive Online Course) environment that provides open self-study courses. One of the strategic goals of the University of Helsinki is to disseminate competencies i.e. “Science and learning belong to everyone”. We have enough material for the course, but limited resources for the task, thus we hope to get help from the DataLite project of University of Helsinki.

Sources:

eOppiva learning environment.
https://www.eoppiva.fi/

Data Quality – Significance and Description of Quality eOppiva course (available in English):
https://www.eoppiva.fi/en/courses/data-quality-significance-and-description-of-quality/

Luvuista oivalluksiin – kehitä tilastojen luku- ja käyttötaitojasi eOppiva course (Statistical Literacy course, available in Finnish):
https://www.eoppiva.fi/koulutukset/luvuista-oivalluksiin-kehita-tilastojen-luku-ja-kayttotaitojasi/

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USA

Statistical literacy: seven simple questions for policy makers

Milo Schield*

Introduction

In today's data-driven world, decision-makers, policymakers, and journalists are frequently presented with statistical and analytical results. However, many of them lack the training to interpret and critically evaluate these findings. This gap between data presentation and understanding calls for improved statistical literacy, especially when dealing with observational data.

Data literacy vs. Statistical literacy

While distinct, data literacy and statistical literacy overlap significantly—particularly in the communication of results to non-experts. These audiences often struggle to grasp the implications of statistical tests and data analytics. They need guidance to ask the right questions and make informed decisions.

The problem policymakers face

Policymakers often respond to statistical presentations with polite but non-committal phrases like, "Thank you. We'll look into that." This typically signals two issues:

- They didn't know what questions to ask.
- The proposal is effectively **DOA**—Dead On Arrival.

To address this, Milo Schield proposes **seven simple questions** that policymakers should ask when presented with observational data.

Seven questions for policy makers

1. **How big, how many, how much?**
   Understand the scale and magnitude of the data.
2. **Compared to what?**
   Contextualize the numbers by comparing them to relevant benchmarks.
3. **Why not a rate?**
   Consider whether a rate would be more informative than a raw count.
4. **Per what? What was taken into account?**
   Examine the denominator and what factors were considered in the calculation.
5. **How were things counted or measured?**
   Scrutinize the methodology behind the data collection.

6. **What was taken into account (controlled for)?** Identify which variables were controlled to reduce bias.
7. **What should have been taken into account?** Reflect on any missing factors that could confound the results.

Illustrative examples

The diabolical denominator

When comparing Covid death rates between Michigan and Rhode Island, the answer depends on the denominator. Ideally, one would use **deaths per infection**, but such data is not always available. This highlights the importance of understanding what is being measured "per what."

Confounding and Simpson's Paradox

A UK National Health Service report showed that death was twice as likely for vaccinated Covid cases (0.41%) compared to unvaccinated cases (0.17%). However, this crude comparison may be confounded by selection bias. Simpson's paradox illustrates how controlling for a related factor can reverse apparent trends.

Disparities in prison populations

Men are disproportionately represented in prison. Is this due to gender discrimination? Similarly, racial disparities raise questions about racial discrimination. These examples underscore the need to critically evaluate what has been taken into account—and what hasn't.

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Outreach activities - Study visits at Istat headquarters in 2024

Patrizia Collesi*

In the course of 2024, a renewed interest for study visits has been showing at Istat headquarters. By the end of the year eight schools came to visit us in Rome, plus two university statistical departments. Some of them came on purpose, and some of them calendarized the visit as a part of the traditional school trip program to Rome. Even if these numbers do not appear to be huge, they are for us a promise of further development.

Data: Coming to the actual numbers of study visits: students of the upper secondary schools were 90, the accompanying teachers were 11, and speakers were 40.

Topics: The programme starts with and introduction by the Director, then the visit continues with the activities developed by Istat about statistical literacy for the reference school level, Istat history and a visit to the historical library, the website with its section, and, after that, the programme continues dealing with the specific requests received from the school. As a way of example in 2024 inflation was of the most requested themes as well as the presentation of the ISLP poster competition, since it is a simple and efficacious way to introduce students to statistics.

Events launching or concluding school projects: In addition to that, three additional events were planned either to conclude or to start, school projects, in the same location as well, that is the impressive Great Hall, recently renovated.

First, at the end of May a meeting for young people took place and it was the conclusion of the Statistica e cittadinanza project (Statistics and citizenship), which explores the gap between reality and perception. The target audience are students of upper secondary schools that have the task to find the gap between perception and official statistical data on a given topic. The 2024 topic was population, and students had to explore the population data warehouse and make a survey among their school mates, then present them with the results and compare them with official data.

After that, in November and at the beginning of December two additional events were held linked to the Census on school desk project, to

launch the 2025 edition. Four classes of the lower secondary schools were hosted in Istat Great Hall and presented with the initiative and with some statistical literacy basic activities.

University study visits: in the month of November two university students' groups also came for a study visit. This was the first time after a long period concerning universities. The groups came respectively from the University of Calabria and from the University of Florence, both from the Department of statistics and management. The programme proposed was similar, rich, offered insights on several topics and involved ten internal speakers, who were happy to participate. Among them the head of the economic department. After the first seminar for university students in November several universities from the EMOS circuit asked us to plan visits in 2025 and at the moment, we have calendarized three of them. One of them, from a upper secondary asked us to prepare a programme with an opportunity to question the 'real life' of statisticians.

In conclusion, study visits are a way to make supposedly far away topics such as those of statistics come close to students and, at the same time, make students interested in what the organization does. This can be useful both for having them as future respondents and as future employees.

Together with the interest from schools and universities we have noticed interest and availability from our colleagues to take part in the visits as speakers. So, let's go ahead with this!

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Chile

Grupo de Investigación en Estadística Temprana de Chile, Latinoamérica

Soledad Estrella*, Pedro Vidal-Szabó**, Sergio Morales***

Presentamos al Grupo de Investigación en Estadística Temprana de Chile, Latinoamérica. El Grupo ha desarrollado un trabajo sostenido desde el año 2012 sobre educación estadística desde el nivel preescolar.

A continuación, presentamos al grupo a través de la estructura de nuestro sitio web.

El grupo de investigación en estadística temprana, es un grupo formado por académicos, formadores de profesores, estudiantes de posgrado y pregrado, motivados por la educación estadística en la era del big data. Características destacadas del trabajo se plasman en el portal web de Estadística Temprana, actualmente en español, próximamente en idioma inglés, https://estadisticatemprana.cl/

Enfoque integral e interdisciplinario

El portal está a cargo del grupo Estadística Temprana (GIET), constituido por investigadores comprometidos con la calidad de la educación en estadística, inferencia y probabilidad desde la educación preescolar. Su misión es redefinir la enseñanza, el aprendizaje y la evaluación desde los primeros ciclos escolares, integrando enfoques innovadores que trasciendan el enfoque tradicional.

Claridad conceptual y definición de objetivos

Asimismo, en el portal se explicitan las nociones clave sobre qué entendemos por Estadística Temprana, por qué es relevante y qué implican los conceptos fundamentales como el pensamiento estadístico, definido como la capacidad de identificar patrones, explorar relaciones, hacer generalizaciones y comunicar conclusiones basadas en datos en situaciones de incertidumbre.

Cobertura de líneas de investigación pertinentes

En el portal, se presentan áreas como: Historia, enseñanza y aprendizaje, visualización de representaciones de datos (listas, tablas, diagramas, gráficos); Desarrollo del pensamiento estadístico, inferencial y probabilístico; Estudios de razonamientos vinculados a la incertidumbre con foco en la alfabetización estadística temprana.

Recursos profesionales para docentes y formación

El portal ofrece herramientas concretas de apoyo pedagógico y recursos que facilitan la incorporación efectiva de la estadística desde etapas iniciales del aprendizaje: Clases públicas disponibles libremente para consulta; Planes de clase diseñados en el marco de Lesson Study , que han experimentado ciclos de mejora y pueden aplicarse y tomar nueva vida en otras aulas escolares; acceso a libros ministeriales vigentes (2020 y 2021) y materiales complementarios realizados por el grupo GIET.

Actividad académica y difusión

GIET se destaca por la organización continua desde el 2014 de Simposios Internacionales de Estadística, Probabilidad e Inferencia en el Aula (como el VI Simposio internacional realizado el año 2024), que acercan la investigación avanzada al trabajo docente y promueven el intercambio entre profesionales y académicos, para la formación de redes nacionales e internacionales. Simposios que han tenido el constante apoyo del destacado educador estadístico Dr. Dani Ben-Zvi de la Universidad de Haifa, Israel.

http://ima.ucv.cl/congreso/simposio-sepia/

El grupo GIET, inspirado desde un programa emergente en Chile aborda la Estadística Temprana, con un enfoque coherente y potente para promover la alfabetización estadística desde los primeros años escolares, busca impactar en la educación de niños y niñas. Su eslogan del sitio web, inaugurado el año 2021, es

Imaginando el futuro: Estadística Temprana que inspira una ciudadanía plena en el s. XXI

Nuestra propuesta de alfabetización estadística, que se amplía a la alfabetización en datos, se distingue por: Enfoque académico riguroso: abordaje conceptual y líneas de investigación bien definidas; Recursos aplicables y de acceso abierto: a materiales concretos —y mejorados por profesores de aula a través de Lesson Study—, para docentes y escuelas; artículos de investigación sobre educación estadística; Vinculación efectiva entre investigación y práctica: simposios, clases públicas —sobre temas contemporáneos importantes, como los desastres naturales y el uso de energías— y estrategias de enseñanza y aprendizaje —play-based y storytelling—; Modelo escalable y sostenible, que puede inspirar iniciativas similares en otros contextos formativos y de ciudadanía, pudiendo tener alcance internacional; junto al involucramiento de estudiantes de posgrado y de pregrado, junto a educadores de preescolar, profesores de primaria, y educadores estadísticos de varias universidades.

Los invitamos a visitar
https://estadisticatemprana.cl/

* Soledad Estrella, Pontificia Universidad Católica de Valparaíso–CHILE
**Pedro Vidal-Szabó, Universidad de Los Lagos–CHILE
*** Sergio Morales, Universidad de Concepción–CHILE

Chile

Innovando en Alfabetización Estadística Docente en Chile:

Una experiencia de formación continua con profesores de secundaria

María Lidia Retamal*, Hugo Alvarado Martínez**

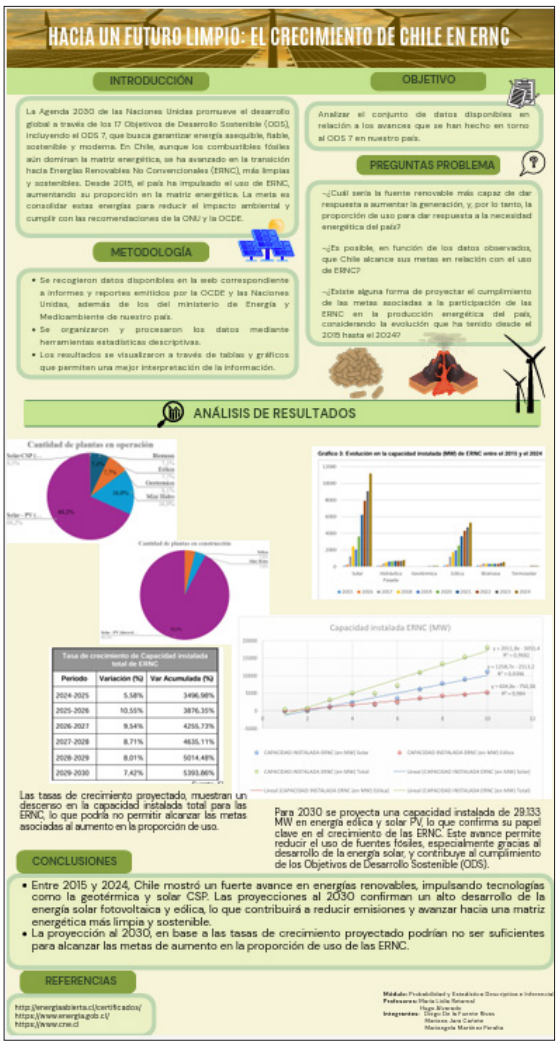
En el sur de Chile, Latinoamérica, se desarrolla un programa pionero de formación continua para profesores de Matemáticas en activo de educación secundaria, orientado a fortalecer la enseñanza de la probabilidad y la estadística en las aulas escolares.

La Universidad Católica de la Santísima Concepción, UCSC, a través del Diplomado en Actualización Disciplinar en Matemáticas implementa el módulo *"Probabilidad y Estadística Descriptiva e Inferencial"* (90 horas, modalidad online). Esta instancia de desarrollo profesional en su cohorte 2024–2025, ha reunido a 35 docentes provenientes de diversas regiones del país, desde Iquique en el norte hasta Puerto Montt en el sur. Este mosaico de realidades territoriales refleja el compromiso de los profesores en Chile con la alfabetización estadística, considerándola como una herramienta clave para la ciudadanía crítica y la toma de decisiones fundamentadas en datos.

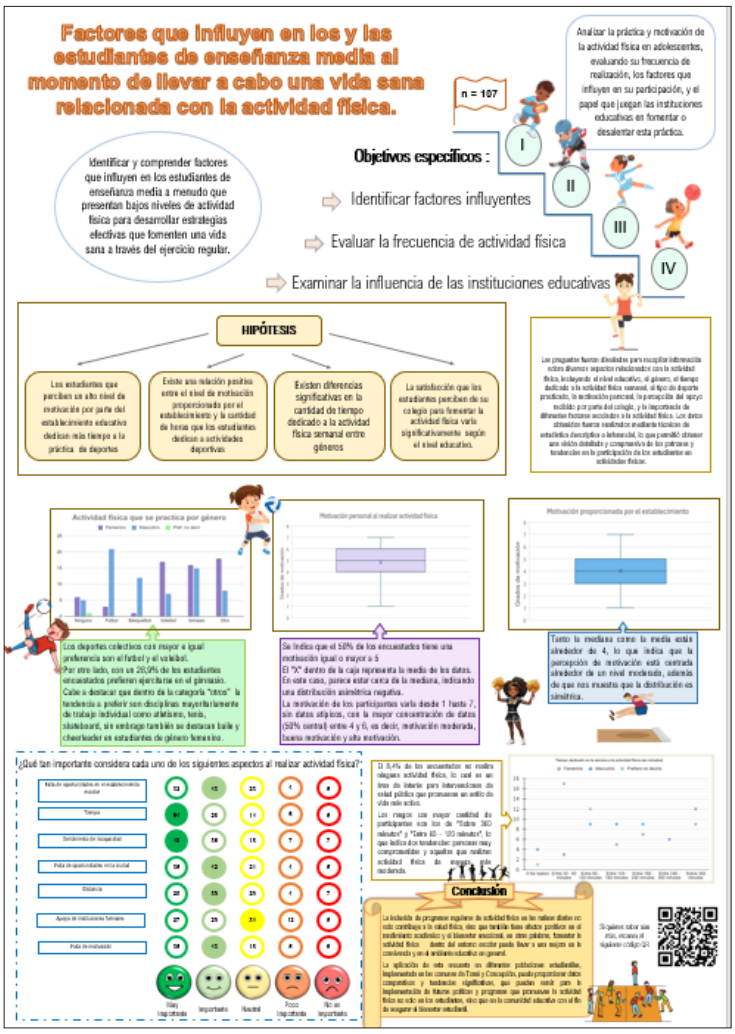
El módulo ha sido diseñado para permitir a los profesores profundizar en sus competencias estadísticas en tres dimensiones principalmente:

- Estadística descriptiva en una y dos variables, con énfasis en organización de datos, representaciones gráficas y medidas de tendencia y dispersión;
- Modelos de probabilidad clásicos, potenciados por el uso de herramientas tecnológicas e;
- Inferencia estadística aplicada, a través de intervalos de confianza y pruebas de hipótesis para medias y proporciones, en concordancia con los objetivos del currículo de matemática nacional.

Una de las actividades más innovadoras fue la elaboración de pósteres estadísticos que abordaron la alfabetización estadística desde problemas del contexto cotidiano, científico y social, integrando habilidades de análisis crítico, comunicación, y visualización de datos. En los informes colaborativos



Tópico: Energías renovables no convencionales
Profesores: Diego De la Fuente Rivas;
Mariana Jara Cañete; y Mariangela Martínez Peralta



Tópico: Vida sana y actividad física
Profesores: Claudia Durán Tardón; Ignacio Fonseca Valenzuela;
y María José Soto Muñoz

Figura 1: Ejemplo de dos posters desarrollados por profesores en servicio.

presentados, los profesores aplicaron con creatividad herramientas estadísticas para explorar temáticas relevantes y llevarlas a sus comunidades escolares (ver Figura 1).

Más allá de la actualización disciplinar, esta experiencia entre universidad y escuela busca empoderar al profesorado para que fomente la alfabetización estadística en sus estudiantes, quienes en un futuro cercano podrán participar en instancias internacionales como el Concurso ISLP de Póster Estadístico 2026. La meta de nuestro Diplomado es que los docentes se transformen en líderes que inspiren a las nuevas generaciones a preguntar, analizar y decidir con base en datos, y a la vez, desarrollan su pensamiento estadístico en la era del big data.

Con iniciativas como esta, Latinoamérica se hace presente en el movimiento global por la cultura estadística, demostrando que la innovación educativa y la colaboración entre pares son caminos efectivos para acercar la estadística a la vida de las personas, y promover una ciudadanía activa.

*María Lidia Retamal (Master en Estadística, UCSC, Chile) lretamal@ucsc.cl

**Hugo Alvarado Martínez (Doctor en Educación Matemática, UCSC; Coordinador Nacional de ISLP, Chile) alvaradomartinez@ucsc.cl

XVI CLATSE 2025

Gabriela Castro*

Del 20 al 24 de octubre de 2025 en Quito, Ecuador, se llevó a cabo el XVI Congreso Latinoamericano de Sociedades de Estadística.

Evento que, desde finales de los años 80, ha sido el espacio clave para el intercambio académico y profesional en el campo de la estadística. Anteriormente, se llevó a cabo en Argentina, Chile, Uruguay, México, Colombia, Perú.

El CLATSE reunió a expertos de talla mundial en estadística, ciencia de datos e inteligencia artificial.

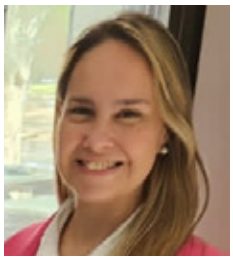
- Eduardo Sáenz de Cabezón – Matemático y divulgador científico de renombre.
- Sueny Paloma Lima dos Santos – PhD en Ciencias Biomédicas Translacionales, experta en Bioestadística y Epidemiología.
- Adriana D´Amelio – Especialista en Alfabetización Estadística y miembro del Proyecto Internacional de Alfabetización Estadística.
- Marcelo Taddeo – PhD en Estadística, experto en economía cuantitativa y modelado de riesgos financieros.
- Eduardo Cepeda – Especialista en IA y MLOps con más de 15 años de experiencia en ciencia de datos.

El XVI CLATSE contó con el apoyo académico de:
Escuela Politécnica del Litoral
Escuela Superior Politécnica de Chimborazo
Universidad de las Fuerzas Armadas ESPE
Universidad Antonio Nariño
Universidade da Coruña
Universidad Andina Simón Bolívar
Universidad Técnica de Manabí

* Presidenta, Sociedad Ecuatoriana de Estadística
see.ecuador2@gmail.com

LII Coloquio Argentino de Estadística

X Jornadas de Educación Estadística "Martha Aliaga" Simposio de Estadísticas Oficiales



Mg Carolina Bulloni, Dr. Pedro José Gauna Quintero

Del 9 al 12 de septiembre de 2025, Posadas será sede del LII Coloquio Argentino de Estadística, la X Jornada de Educación Estadística "Martha Aliaga" y, por primera vez, del Simposio de Estadísticas Oficiales.

El encuentro reúne a especialistas nacionales e internacionales, docentes, investigadores y profesionales, con el objetivo de intercambiar experiencias y fortalecer el desarrollo de la estadística en distintos ámbitos: la educación, la investigación académica, la producción de datos oficiales y las aplicaciones en ciencias sociales, salud y nuevas tecnologías.

Martes 9 – X Jornada de Educación Estadística "Martha Aliaga"

Jornada especialmente dirigida a docentes, con actividades gratuitas, valoración oficial y reconocimiento del Ministerio de Educación de Misiones.

- Conferencia inaugural: Un enfoque enactivo y digital a las probabilidades y el riesgo en la escuela primaria – Dra. Laura Martignon (Alemania-Colombia).
- Conferencia de cierre: Problemas en la enseñanza de la estadística para la investigación en ciencias sociales y humanidades – Dr. Alejandro Márquez Jiménez (México).

- Taller de trabajo: El INDEC llega a la escuela. La alfabetización estadística hoy –
- Sandra Fernández Gallo y Sol Baraja (INDEC, Buenos Aires).
- Presentación IPEC: “Contar para entender: una propuesta didáctica del IPEC Misiones para trabajar la estadística en el aula” a cargo de la Lic. Ma Laura Semeguen.

Miércoles 10 al Viernes 12 – LII Coloquio Argentino de Estadística

Conferencias destacadas:

- An historical overview of textbook presentations of statistical science – Dr. Alan Agresti (Estados Unidos).
- Algunas nociones de profundidad y sus aplicaciones – Dr. Marcelo Ruiz (Universidad Nacional de Río Cuarto, Córdoba).
- Dimensiones no observables en Eventos de Salud: Cómo nos ayudan las Ecuaciones Estructurales Generalizadas en la estimación de sus riesgos – Dra. María del Pilar Díaz (Universidad Nacional de Córdoba, Argentina).
- Desarrollo de índices estadísticos basados en redes multicapas – Dra. Claudia Huaylla (Buenos Aires, Argentina).

Minicursos de formación avanzada:

- Análisis y visualización de series temporales multivariadas. Extracción de tendencia
- y estacionalidades. Detección de eventos – Dra. Ana Georgina Flesia (Universidad Nacional de Córdoba, Argentina).
- Taller de estadística bayesiana con PyMC – Lic. Tomás Capretto (Universidad Nacional de Rosario, Argentina).
- IA y Python en el análisis y la predicción de series de tiempo – Lic. Sergio Leal (Universidad Nacional de Misiones, Argentina).

Además: sesiones de comunicaciones orales y pósters, con participación de investigadores y estudiantes de diversas universidades del país.

Viernes 12- Simposio de Estadísticas Oficiales

Mesa Redonda

Parte 1: Producción de Datos Comparables

- Programa de Actualización Geoestadística para la Producción de Información a nivel local en Misiones a cargo de :Carolina Ocar. *“Instituto Provincial de Estadística y Censos de Misiones”*
- Los desafíos de la Comparabilidad en la Encuesta Permanente de Hogares a cargo de :Sandra Duclós .*Instituto Nacional de Estadística y Censos–INDEC*
- Producto Bruto Geografico de la Provincia de Buenos Aires por Partido. a cargo de: Néstor Rañil. *Dirección Provincial de Estadística – Provincia de Buenos Aires*

Parte 2: Trabajos de las Oficinas Provinciales de Estadística

- Portal Territorio De La Dirección General De Estadística Y Censos De La Provincia De Córdoba cargo de :Laura Luna Dirección General de Estadística – Provincia de Córdoba
- La Encuesta de Calidad de Vida en Corrientes cargo de : Juan Francisco Bosco Instituto Provincial de Estadística y Ciencia de Datos de Corrientes
- Pobreza e Indigencia Multicausal: Una década de Aplicación Metodológica en las Estadísticas Oficiales de Misiones cargo de : Silvana Labat - Darío Diaz Instituto Provincial de Estadística y Censos de Misiones

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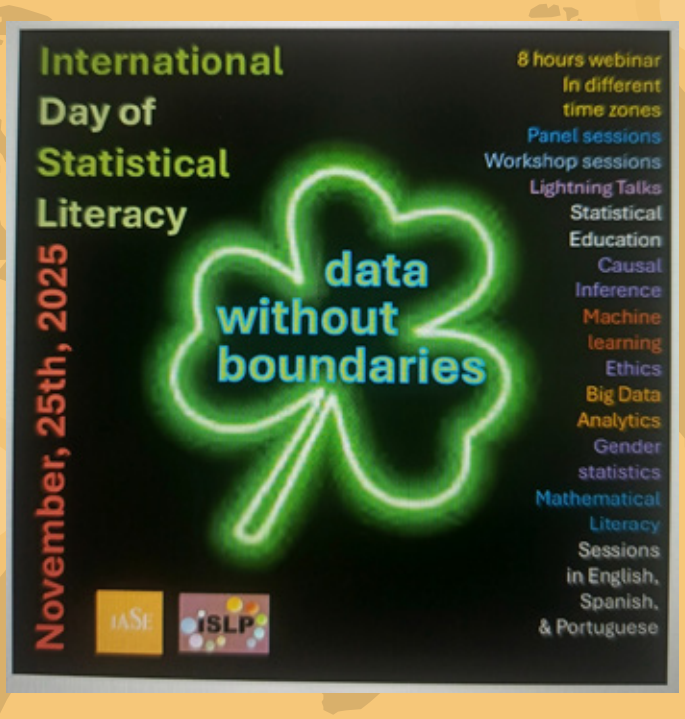
IDSL 2025

Pre-conference workshop

INTERNATIONAL DAY OF STATISTICAL LITERACY 2025

25 NOVEMBER 2025, 10 AM TO 6 PM UTC (COORDINATED UNIVERSAL TIME)

A FREE online conference full of interesting presentations, panel discussion, and lightning talks.



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IDSL 2025
PROPOSED PROGRAM

Session	Time (UTC)	Activity	Session Chair
1	10:00 am to 10:08 am **(08 min)**	**Welcome Address** by Reija Helenius (Director ISLP)	Dr. Saleha Naghmi Habibullah (Conference Chair) (Deputy Director ISLP)
2	10:08 am to 10:40 am **(32 min)**	**INVITED TALK** **Statistical Literacy: A Key to Responsible Citizenship** by Prof. Ayse Aysin Bilgin	Dr. Irena Ograjensek (Deputy Director ISLP)
3	10:40 am to 11:10 pm **(30 min)**	**Assessment of Statistical Literacy at Secondary School Level in Indonesia** by Dr. Achmad Badrun Kurnia (Indonesia)	(Deputy Director ISLP) Dr. Pedro Campos (Conference Vice-Chair)
4	11:10 am to 11:35 am **(25 min)**	**Statistics Literacy as a Lever to improve Gender Statistics** by Dr. Salahideen Alhaj (Saudi Arabia)	Dr. Faryal Shabbir (Country Coordinator, Pakistan)
5	11:35 am to 12:00 pm **(25 min)**	**Teaching Statistical Concepts in Mathematical Literacy: The South African Context** by Mr. Motimedi Sekhobela	Dr. Irena Ograjensek (Deputy Director ISLP)
6	12:00 pm to 12:25 pm **(25 min)**	***Session in French*** **Teaching Statistics and Statistical Literacy in Francophone Africa: Progress, Opportunities and Challenges** by Mrs. Francoise Nyandwi	Ms. Dorcas Kareithi (Country Coordinator, Kenya)
7	12:25 pm to 01:07 pm **(42 min)**	**LIGHTNING TALKS** related to Statistical Literacy (4 to 6 minutes each)	Dr. Saleha Naghmi Habibullah (Conference Chair) (Deputy Director ISLP)
8	01:07 pm to 01:35 pm **(28 min)**	**Navigating the Uncertainty: Innovations in Bayesian Methods and Their Applications in Big Data Analytics** by Dr. Isaac Fwemba	Dr. Chigozie Kelechi Acha (Country Coordinator, Nigeria)
9	01:35 pm to 02:05 pm **(30 min)**	Invited Panel Discussion Session **The Use of Artificial Intelligence in Teaching and Learning of Statistics** Panelists: Mauren Porciúncula, Pedro Campos	Dr. Irena Ograjensek (Deputy Director ISLP)
10	02:05 pm to 02:30 pm **(25 min)**	**Harnessing the Power of Machine Learning: Advances in Causal Inference for Data-Driven Decision Making** by Dr. Godday Ebuh	Dr. Chioma Nwosu (Country Coordinator, Nigeria)
11	02:30 pm to 03:10 pm **(40 min)**	***Session in Spanish/Portuguese*** **Activities to promote Statistical Literacy in Latin America** Dr. Liliana Mendoza, Dr. Gabriela Castro, Dr. Hector Hevia	Dr. Adriana D´Amelio Deputy Director ISLP (Argentina)
12	03:10 pm to 03:35 pm **(25 min)**	***Session in Spanish*** **Ethics in Statistical Education** by Prof. Teresita Teran	Dr. Mauren Porciúncula (Country Coordinator, Brazil)
13	03:35 pm to 04:00 pm **(25 min)**	**False Discoveries and True Understanding: A Friendly Introduction to False Discovery Rates for Everyday Decision-Makers** by Dr. Isaac Dialsingh (Country Coordinator, The Americas)	Dr. Teresita Teran (Member, Advisory Board, ISLP)
14	04:00 pm to 04:30 pm **(30 min)**	**KEYNOTE ADDRESS** **related to Statistical Literacy** by Prof. Milo Schield	Dr. Saleha Naghmi Habibullah (Conference Chair) (Deputy Director ISLP)
15	04:30 pm to 04:55 pm **(25 min)**	**Feedback from Participants** including **Suggestions for IDSL 2026** (to be held on Tuesday, 17 November 2026)	Dr. Saleha Naghmi Habibullah (Conference Chair) (Deputy Director ISLP)
16	04:55 pm to 05:00 pm **(5 min)**	**Closing Remarks** by Dr. Saleha Naghmi Habibullah (Conference Chair)	(Deputy Director ISLP) Dr. Pedro Campos (Conference Vice-Chair)


INTERNATIONAL DAY OF STATISTICAL LITERACY 2025
25 NOVEMBER 2025, 10 AM TO 6 PM UTC (COORDINATED UNIVERSAL TIME)
CALL FOR LIGHTNING TALK SESSION ABSTRACTS
WANT TO GIVE A 4-TO-5-MINUTES-LONG TALK ON STATISTICAL LITERACY? SEND YOUR ABSTRACT BY OCTOBER 15, 2025 FOR CONSIDERATION BY THE IDSL CHAIR AND VICE CHAIR. AUTHORS OF SELECTED TALKS WILL BE NOTIFIED BY OCTOBER 30, 2025.
islp.coordination@gmail.com

INTERNATIONAL DAY OF STATISTICAL LITERACY 2025

Closing keynote

4:00 pm to 4:30 pm (UTC)

Statistical Literacy and Chance

Prof. Milo Schield
Fellow, American Statistical Association
Author of “Statistical Literacy: Critical Thinking about Everyday Statistics.”

Abstract: Statisticians commonly use 'probability' and 'likelihood' to describe statistical ratios. Both of these are members of the chance grammar family along with 'risk' and 'odds'. Chance grammar is designed to highlight the random outcome (the chance of rain; the odds of winning; the probability of Type 1 error) with little or no mention of the context. The failure to specify the context creates ambiguities in understanding. Chance grammar can confuse statistical educators. E.g., What is the chance that a head on the first flip of a fair coin is followed by a head on the second flip? Statisticians commonly use 'likely' and 'prevalent' to describe and compare statistical ratios. What is the difference? Note that "the car most likely to be stolen" is different from "the car most likely among those stolen". Finally, chance grammar can create the confusion of the inverse. "The chance of a positive test given that one has the disease" can be quite different from "the chance of having the disease given that one has tested positive"