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Istat role in promoting statistical literacy

- Corporate activity (Istat is a research agency):
  - Clearly Stated in the Statute, Articole 3

- Dissemination of research results in Italy is inserted in the Third Mission (dissemination of knowledge), one of the pillars of research activities, (research is #1 and didactic activity #2)

La terza missione

La terza missione riguarda il rapporto degli enti di ricerca con la società e con lo sviluppo economico e culturale attraverso la trasformazione, la messa a disposizione e la diffusione della conoscenza prodotta con l’attività di ricerca, nonché attraverso la promozione e l’avviamento alla ricerca stessa. Si tratta di un insieme complesso di attività che include diverse modalità di relazione, diversi output e diversi sistemi di trasferimento, formali e informali, al cui interno sono comprese, laddove non incluse tra le attività di ricerca istituzionale dell’ente, tutte le attività di valorizzazione della ricerca e di produzione di beni pubblici di natura sociale, educativa e culturale, vale a dire le attività di promozione e divulgazione della cultura statistica, le attività per la fornitura di dati a livello micro e macro resi disponibili per il sistema della ricerca, nonché la produzione di strumenti di vario formato messi a disposizione delle comunità scientifiche eventualmente sperimentate dal Laboratorio per l’innovazione.
Promoting statistical literacy: corporate and research activity

FOR STUDENTS AND TEACHERS

Istat is actively engaged to foster the use of statistics in scholastic disciplines and move generally, in the development of a quantitative approach to everyday life.

The development of statistical literacy is implemented through actions aimed at increasing the critical sense of the users through the correct understanding of statistical data and information. Constituent elements of this process are:

- the promotion of the paradigm of statistical research (fundamental in the process of acquiring knowledge through the empirical observation of reality);
- the orientation to the use and application of data and information produced by official statistics to a plurality of cognitive, decision-making and evaluation contexts;
- the development of a method for decision-making, especially in conditions of uncertainty, through the use of official statistics;
- the knowledge of the set of criteria that guide the activity of the statistician and of the researcher; a.
- the promotion of metadata culture;
- the attention to quality and its “certification”.

On these bases, Istat’s proposal on the development of statistical culture is based on four pillars:

1. to disseminate the pervasive and reasoned use of statistics within the curriculum disciplines, oriented to humanistic subjects and social sciences, as well as to the Stem disciplines (science, technologies, engineering, mathematics);
2. to equip the learners with a “statistical toolbox” and to develop the critical sense; the recognition of regularity (patterns), the capacity for synthetic thinking and the habit of interpreting reality through models;
3. to reach boys and girls outside the scholastic channel, through familiar and fun activities and methods (gamification);
4. to develop the quantitative and statistical interest and literacy of adults.

Moreover, at the national level, Istat has started collaborating in 2018 with the project “At the School of OpenCorso” (A Scuola di Open Corso – Asicso). This project is eligible as Fastway for transversal skills and orientation (Percorso per la competenza transversale e per l’orientamento – PCTO) and for teachers’ training.

An agreement was signed in 2019 with the Association of European Economics Education (Associazione europea per l’educazione economica – AEEE Italia). The agreement is aimed at developing statistical literacy in schools and it is addressed to the training of teachers in secondary schools.

Istat also organizes study visits to illustrate the main activities of the Institute and the National Statistical System and to stimulate students’ curiosity for statistics.
In 2019 Istat entered an agreement with the Ministry of Education for disseminating statistical and quantitative literacy at every school grade.

Among the objectives:
• Support to initiatives/competitions intended for schools (Census at school project; Statistics Olympiads)
• Widespread dissemination of activities of the whole programme of statistical literacy activities
Promoting statistical literacy – Partnerships/1

Cooperation with other agencies, bringing to projects the value of official statistics in projects for schools with official statistics as a cross-curricular topic

• **At the School of OpenCohesion**
  an innovative educational programme aimed at promoting and developing principles of active citizenship in Italian schools starting from Open Data on projects funded by European and Italian resources, by way of projects of civic monitoring and research of European and Italian public funding.

• percorso di didattica integrata per la cittadinanza attiva (supporto territoriale per analisi e ricerca dati e formazione docenti)

• ASOC provides the opportunity to **develop skills** in digital technologies, **statistics** and civics in order to help students understand and describe how public policies—and cohesion polices in particular—impact the communities in which they live.

Up to now targets secondary school students (is extending…)

Has a strong link with the territory

Students monitor the use of European funded projects

Istat’s statisticians act as data experts, giving support to search and to explain data

Students learn how to:

- Use data and simple indicators
- Explain information on their territory with data
Promoting statistical literacy – Partnerships/2

Cooperation with other agencies, bringing to projects the value of official statistics in projects for schools with official statistics as a cross-curricular topic

- **Indire** with other public research agencies in the pandemic period (May 2020) dissemination materials available for students and their families, and for teachers

- **Italian statistical society:** Statistical Olympiads

- **European Association for economic education** (AEEE-Italian branch) training materials for teachers
Promoting statistical literacy - Materials

Training/learning materials, for students and teachers in the corporate website

- Didactic materials from statisticians on the main concepts of statistics, with official statistics data

- Exercises from competitions: statistical topics with official statistical data taken from Istat publications

- Materials from the Census at school: with data from Population Census

- Learning units on the Sustainable development Goals (SDGs)
(A cura del Prof. Fabio Randeralli – Aaeo Italia – Ite Bassi di Lodi)

Il presente percorso didattico si articola su tre fasi in cui saranno utilizzati i seguenti set di slide caricati sulle pagine:

1. Genesi storica dell’agenda 2030
2. Introduzione al concetto interdisciplinare “sconfiggere la povertà”
3. Indicatori Goal 1
4. Come leggere gli indicatori del Goal 1

Una volta terminate queste tre fasi si possono proporre gli esercizi presenti al punto Esercizi di consolidamento per aiutare gli studenti a sedimentare le conoscenze e le competenze acquisite durante il presente percorso. Infine, viene presentato un compito di realtà utile per valutare per competenze quanto appreso dagli studenti.

1. PRESENTAZIONE DEL TEMA

Nella prima fase, dopo aver introdotto il tema dell’agenda 2030, si procede alla presentazione del tema della povertà.

GENESI STORICA DELL’AGENDA 2030
Le slide illustano il contributo dell’Agenda 2030 in materia di sviluppo sostenibile, declarandolo in 17 obiettivi, e la genesi storica che ne ha portato all’approvazione.

INTRODUZIONE AL CONCETTO INTERDISCIPLINARE “SCONFIGGERE LA POVERTÀ”
Competitions: available for every school grade

- Census at school (primary and low secondary school)
- Statistical Olympiads (upper secondary school)
- ISLP competition for statistical posters (from low secondary to MD)
- Create your own infographic (fase prototipale alla XIV Conferenza nazionale di statistica)
Donald W. Winnicott, pediatrician and psychoanalyst, defines "PLAYING" as a creative life experience that takes place in a space-time continuum that hosts and gives meaning to existence in all its phases.

"(...) It is in playing and only in playing that the individual child or adult is able to be creative and to use the whole personality, and it is only in being creative that the individual discovers the Self"
A real “television phenomenon” nowadays transversal to the programming all over the world, is that of "talent show". Even if focused on the most disparate "talents", the format is monolithic on the same core idea: 

**two reasons** explain the massive affection of television audience:

- the extremely engaging and gratifying experiences of
- 1) "active protagonism"
- 2) "creative playing"
Playing as enhancing statistic young targets’ protagonism

1) Protagonism as "voting audience" playing the fate of gifted people

2) Protagonism as “gifted participant” playing a competition to gain a “talented” destiny.
MATCHING THESE PILLARS:

1) the importance of playing for human beings

2) the value of “protagonism” in enjoying and being involved in any experience

3) the phenomenon of “talent show”

4) the “infographic mania” and Istat expertise in producing infographics

Istat launched its first “Talent for statistic Infographics”, during the 14th Italian National Conference of Statistics (2021)
INFOGRAPHICISTS OF ALL AGES

were invited to get inspiration from Istat production, to create their own infographics focused on

1. Population and households
2. Institutions and society
3. Education and labour
4. Economy
5. Environment and territory

Our “talents” and their infographics, whether painted or processed with graphics software, were exhibited in a dedicated virtual gallery

Thanks both to those who participated in this talent show and the audience that enjoy it, Istat demonstrated that numbers can be fun, imagination, art.

They can be Game, the one with a capital G, in which to feel alive.
Istat inspiration...
MADRI SINGLE, FIGLIE E PELUCHE: LA NOSTRA VITA MERAVIGLIOSA 😊😊😊

In Italia 2,4 MILIONI DI DONNE SONO MADRI SINGLE

Istat, Aspetti della Vita Quotidiana. Anno 2020
Thank you for your attention

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