

# Statistical literacy portal as a marketing tool

Adolfo Gálvez<sup>1</sup>, MJ Vinuesa<sup>2</sup>

<sup>1</sup> Spanish Statistical Office (INE), Madrid, Spain; [adolfo.galvez.moraleda@ine.es](mailto:adolfo.galvez.moraleda@ine.es)

<sup>2</sup> Spanish Statistical Office (INE), Madrid, Spain; [mariajesus.vinuesa.angulo@ine.es](mailto:mariajesus.vinuesa.angulo@ine.es)

## Abstract

The Spanish statistical literacy portal (Explica) from INE takes a broad approach to reach the goal of improving the statistical knowledge in society. Indeed it is not only seen as a learning platform for academic institutions and actors (teachers and students), but also as a marketing tool in order to spread important statistical concepts and values to a wider audience in a user-friendly way.

**Keywords:** Statistical Literacy portal, marketing tool, high quality standards

## 1. Need of promoting official statistics and statistical literacy

The emergence of new information providers sharing communication channels accessible to all users and which may have some apparent advantages in terms of flexibility, speed and visualization techniques, can lead those users of official statistics to change the traditional sources on which they have based their decisions.

Therefore, it is very important to emphasize the communication of the quality of statistics and public service values.

In this context, the promotion of official statistics is a core task in the strategic plans of national and international statistical organizations, and is an essential activity to maintain their presence and relevance to users.

Many promotional activities are focused on the presentation of a product, its features and its possible practical applications. But there is a strategy that should be viewed as beneficial for statistical offices: the investment in Statistical Literacy. The 2020 Vision of the European statistical system acknowledges the importance of this task to help users: “*We will make sure we deliver information in an interactive and easily comprehensible way, and improve*

*statistical literacy of European citizens and institutions by guiding them through the deluge of data and information from various origins”.*

According to the definition provided by K. Wallman in 1993, *"Statistical Literacy' is the ability to understand and critically evaluate statistical results that permeate our daily lives-coupled with the ability to appreciate the contribution that statistical thinking can make in public and private, professional and personal decisions"*, a citizen who is statistically literate will be ready to understand and differentiate the statistics that surrounds them. Because of this, the projects of statistical literacy should include at least three fundamental aspects:

- Basic understanding of concepts and statistical methods
- Encouraging the appropriate use of the information to reach valid conclusions and take adequate decisions.
- Communicating the differential values of official statistics by emphasizing their independence, reliability and quality.

Some direct fruits can be achieved from the success of these projects:

- Better knowledge of the institution among potential users of the information
- Better use of the statistics produced.
- Greater recognition among regular users by increasing the quality of the service

And finally, perhaps the most important of all: the increase of statistical knowledge in society would result in a critical attitude to the sources of information that do not meet adequate quality criteria, so that decisions can be based on the best available sources.

## **2. Spanish statistical literacy project: More than a learning platform**

Although different initiatives have been carried out in the area of statistical literacy for some considerable time, sometimes statistical offices have devoted limited resources to these projects. Besides this, some of these projects have been almost abandoned in recent years, as a consequence of a steady increase in production demands with stable or even decreasing resources. The effects of the lack of vision to give continuity to these projects have been

negative mainly because the portals with informative content did not have updated information or were using obsolete forms of presentation.

However, in some cases as in the ones presented below, these projects reach not only the main objectives of raising the statistical level of society but they improve the image of the institution and convey its core values to the users.

Since 2010, INE has been developing a project of statistical literacy whose central element is an informative website known as *Explica*. While this project presents some features which are common with other works in this field, there are other characteristics that should be noted.

Common characteristics include:

- The use of less formal language than the usual one employed in the communication of official statistics. This allows the messages to be adapted to different types of users.
- The importance of the design to be appealing for different users' profile
- The establishment of agreements with other organizations to increase the sense of educational and informative materials.
- Students of the first/secondary educational levels as a target audience.

While these features are present in *Explica*, there are others that can be pointed out as differentials in terms of:

1. Users: In this statistical literacy portal, contents are not only aimed at students and teachers, but also include materials that may be of interest to all users, without forgetting potential users of statistical information.
2. Contents: Besides offering information about some *classical* concepts of statistics (probability, sampling, survey methods, graphs,...) *Explica* includes concepts of the statistical products that INE releases, such as the unemployment rate, gender gap, life expectancy, -GDP ... Attention is also paid to the institutional aspects such as the quality dimension of statistics or the process followed to decide which statistics are going to be produced.
3. Communication tools: special attention is paid to the effort that users must carry out to grasp the message . For this reason, many contents of this portal are presented in the

form of videos or games. Videos allow users to capture concepts and key ideas in an easy way, while games let them practise and interact with statistical information.

Documents and presentations are also offered in other sections, in order to gain more in-depth knowledge about statistical concepts.

4. **Activities:** Statistical Literacy Project *Explica* is not exclusively an informative portal. It promotes knowledge of official statistics by developing activities aimed at different types of users such as educational visits, statistical contests or exhibitions during events like Census operations, World Statistics Day, etc.

As it is said before, in this project videos are used with different purposes. Among them, to promote the official statistics and its core values. Below some examples can be found:

- **Statistics are about everyone, If Spain were a village, A day in figures:** Apart from presenting a direct message of thanking the respondents for their collaboration, these videos convey the idea that official statistics are a public good with useful data. They are intended to increase the awareness of our production.
- **The European Statistical System:** The main idea of this video is to inform users about some institutional information that perhaps they are not aware of. It is just an easier way of perceiving the reality of the ESS instead of reading a paper or a presentation.
- **Quality principles of INE Spain:** This video introduces the principles of the Code of practice in such a way that it is not only a set of rules to follow (a code) but also it shows the way we are doing things in order to produce high quality products with our institutional values.
- **Statistical secrecy:** This is a special type of video under the brand: *Statistical Pills*. They are very short videos directly focused on explaining some statistical concepts. This video deals again with one of the core principles of the official statistics as it is statistical confidentiality.

More examples can be found at the Youtube channel INEDifusion.

After more than 5 years' experience, it can be said that this project has been satisfactory and has achieved part of its fundamental objectives:

- INE has a relevant presence in the academic community as proven by the fact that each year more than 4000 students attend educational visits. Participation in the statistical contest named "Statistical Olympiad" has also been important and it has increased in successive editions of this competition. Last year more than 1300 students participated in it.
- The values and the products of INE also have a presence in *Explica* through the videos produced. So far, these videos have more than 285000 views and have positive feedback from users. These videos are also promoted via Twitter and they are among the top rated by our users.
- This project has been awarded as one of the 50 best digital ideas in digital education by the economic newspaper Expansion among more than 400 candidate projects.
- This experience has also been recognized as a good practice in the last Peer Review exercise in the ESS: *"INE has spent considerable effort on promoting statistical literacy. Thus, INE has developed the web portal Explica which is an attractive pedagogical system with the objective to educate users in statistics; increase their understanding of statistics, how statistics are developed and how they can be used. The Explica has a lot of user friendly content for students and the general public such as a series of short videos explaining statistics and developed for the web and for YouTube, and a competition programme for high-school students termed 'Statistical Olympics'. This system has not only found an audience in Spain but also a large audience in Latin America. The Peer Review team considers this a noteworthy contribution to the advancement of statistical literacy."*

### **3. Conclusion**

At a time in which promotion of official statistics seems to be one of the activities that should help to consolidate the role of statistical offices, this paper shows that investment in statistical

literacy is beneficial for empowering users to appreciate the values on which our production is based.

#### **4. References**

ESS Vision 2020: <http://ec.europa.eu/eurostat/web/ess/about-us/ess-vision-2020>

Wallman, 1993 - Journal of the American Statistical Association, Vol 88, Num 421

Making Data Meaningful Part 4: A guide to improving statistical literacy. UNECE