

## Comment

### MASTER IN SCIENCE COMMUNICATION: AN OVERVIEW

# A graduate course for science communicators: a Mexican approach

**Elaine Reynoso Haynes**

*ABSTRACT: Within the UNAM (The National Autonomous University of Mexico) there is an institution, the Dirección General de Divulgación de la Ciencia (DGDC) devoted to the popularization of science through different media such as museums, exhibitions, journals, books, radio and TV programs, internet, workshops for children, demos, shows, plays, summer courses and outreach programs. Most of these products and materials are planned, designed and manufactured by a multidisciplinary team of professionals in the DGDC. Some of our most outstanding projects are: the creation and operation of two science museums, UNIVERSUM (on the university campus), and the Museo de la Luz (Museum of Light) in the center of the city, many temporary and traveling exhibitions, museums in other parts of the country and abroad and a monthly publication for young readers called ¿Cómo ves?*

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One of the main interests of the DGDC is the professional development of science communicators. Several courses are offered with this purpose. The two most important ones are a course for science museum explainers and a graduate course for science communicators, called **Diplomado en Divulgación de la Ciencia**. We also collaborate with the School of Philosophy of the UNAM in the a specialization in science communications, as part of the program of the masters and PhD in philosophy of science,

The **Diplomado en Divulgación de la Ciencia** is now in its fourteenth year. The experience of planning, designing, constructing and evaluating the Science Museum **UNIVERSUM** made the need for professional development in the field of science communication quite apparent. Therefore, shortly after the museum was inaugurated in 1992, we started discussing such a project. Since most projects in science communication require multidisciplinary work teams, we decided to offer a one year graduate course for people coming from different backgrounds and fields of expertise.

The first course was offered in 1996. Our goal was to present a wide and varied perspective of the field, with a particular emphasis on written communication. Over the years, this course has evolved as a result of experience and evaluation. New teachers, approaches, theories and methodologies have been incorporated.

Internal evaluation has always been considered a tool for improvement and therefore an integral part of the course. In 2007, after twelve continuous years we decided that a profound assessment was in order. The task was given to external professional evaluators. The diagnosis included the analysis of the international, national and institutional contexts, the curricula, comparisons with similar programs offered in other institutions, the opinions of the staff and teachers and finally a follow up of students from previous generations. We also had an internal symposium with the purpose of examining and

updating our programs. With the results of both the internal and external evaluations we set out to plan the *XIII Diplomado en Divulgación de la Ciencia* offered in 2008. The idea of exposing the students to a panoramic view of the field prevailed, with the purpose of offering them a general basis from which to choose a future specialization, in certain scientific topics, media, target audience, or a combination of these. We strongly believe that the success and richness of our chore in communicating science depends not only on getting the correct ideas across to our audiences and the quality of the products and activities we plan and design, but also on the creativity with which they are produced. Diversity, inclusion and equity are definitely issues which must be addressed.

This wide spectrum is reflected in the topics we cover and the different backgrounds and expertise of our teachers. The same diversity is reflected in the students, including a wide range of ages. Although most of our students are local, some come from other states and countries. This rich environment has proven to be very beneficial.

Here is a brief description of the *Diplomado en Divulgación de la Ciencia*:

**Mission:** To provide the student with the theoretical and practical tools required to become a professional in the field.

**Admission requirements:** A minimum of 80% credits of a university career and to pass the entrance exam.

**Description:** Theoretical and practical subjects which add up to 240 hours.

**Topics:**

1. Different approaches and points of view about science.
2. Different theoretical and methodological approaches to science communication.
3. Contemporary science and its popularization.
4. Different media used for communicating science.
5. Development of skills and the acquisition of tools for communicating science.
6. Final workshop

Most of our graduates decide to become professional full time science communicators. Students who were already working in the field before the course say that it has given them the foundations they were lacking. Those who give classes, say that their teaching abilities improve. Some continue their studies by enrolling in the science communication specialization program in the masters and PhD in Philosophy of Science.

As in many other countries around the globe, the field of science communication in Mexico is expanding and diversifying. The demand for professional development is increasing. In the last few years, other institutions in Mexico and South America have requested that we offer in their city, the same course or one designed to satisfy specific needs.

This growing interest in the professional development for science communicators is definitely good news in a world which is so dependent on science and technology. The incorporation of both to the general culture of the population is obvious. Citizens must be prepared to take informed decisions related to science and technology issues on both a personal and collective level. The future of the planet and all its species requires an urgent change of attitude and values. Respect for diversity and a constant drive towards inclusiveness and equity can no longer be put off. The tension between local and global must be taken into account. Such a tremendous task cannot be left to the school system alone. All sectors of society must join forces to become the Educational Society proposed by Jacques Delors,<sup>1</sup> which includes the scientific community, the school system, the media and of course science communicators as a fundamental link and interpreter among all the above and the public.

## Notes and references

<sup>1</sup> J. Delors, *Learning: the treasure within*, UNESCO (1996).

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