

Comment

Introduction

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During the latest annual conference of ECSITE (European Collaborative for Science and Technology Exhibitions; Helsinki, June 2005), the largest and most prestigious association of important European science centres and museums, for the first time two discussion sessions were devoted to explainers,¹ the innumerable people – young students mainly – who welcome visitors at exhibitions, museums and festivals, who animate laboratories and science shows, who guide, explain and lately also stimulate and manage discussions and participatory procedures.

There was a good attendance on the part of the general public. Science communication experts spoke during the sessions, coming from contexts with long-standing traditions and a great impact on European society. The papers tried to delineate the professional profile of the explainers and the nature of their work, their preparation and the way they are integrated within museums or science centres. We are very thankful to *Jcom* for hosting the proceedings of these meetings and to the speakers for agreeing to submit a broadened version of their papers. A great deal has to be done yet in order to analyse the complex European context and to fully understand the explainer's professional profile.

Both the explainer's status and his working techniques are of crucial importance in the field of scientific communication and museum education. Informal education techniques, the nature of a visitor's experience in a museum, the existence of hands-on experimental activities involving discovery or emotional involvement: all these imply a sharp distinction between the role of teacher-educator in formal contexts like a school and the role of explainer-educator in museums and science centres. The explainer has the task of facilitating the visitor's experience. He encourages visitors to be actively involved in an activity, to be able to reason about an exhibit or an object, and to play. Learning from museums is a complex process, often rather difficult to verify. Explainers are the "best informed" and those who, according to the Vygotskian theory of the "proximal zone of development", should maieutically help visitors to develop new skills and new knowledge structures.²

It goes without saying that this role requires explainers to have an elaborate preparation, going from the contents of the activities, exhibits or collections they present to some pedagogical-communicative knowledge.

Over the past few years, however, the role of the explainer has been spreading beyond mere "educational tasks" within museums and science centres. Explainers are increasingly becoming a key figure as far as direct contact with visitors is concerned, even though their skills and their professional profile have not been clearly identified yet and there are differences in their vocational training from one institution or country to another.

The human factor

In science museums and science centres all around the world, a whole host of explainers welcome and entertain the public in a variety of ways. Explainers are present in exhibition rooms, they often wear the colourful museum T-shirt, they answer or elicit the visitors' questions, they explain how exhibits must be used. In the case of groups – school classes, typically – they take them fully on themselves and accompany them during the visit, or in structured educational activity areas. In educational labs, they carry out demonstrations or organise experimental activities and follow their execution. On the occasion of festivals or exhibitions outside the museum, they are responsible for the flows of visitors and organize

public performances, their job sometimes resembling that of jugglers or circus artists. They are often responsible for pointing out that an exhibit does not work and sometimes even for repairing it.

There are explainers in science centres and museums of all kinds, but also in aquaria, botanical gardens, planetaria, centres inside nature parks, centres for scientific education etc. They are a homogeneous group in their being an interface between the public and the institution, though with different tasks, educational styles and contract conditions. They even have a number of names: *explainer, interpreter, pilot, educator, demonstrator, presenter, enabler, interactor, host* in English; *animatore, guida scientifica, operatore didattico* in Italian; and then there are *educateur, médiatateur, facilitateur, animateur* (in French), *demonstrator* (in Slovene), *edutainer, monitor* (in Flemish), *Museumführer, Moderatoren* (in German), *opas* (in Finnish), *monitor* (in Portuguese), *begeleider, suppoost, presentator* (in Dutch), *museilärare, teknoramavård, museivård, vård, museipedagogue* (in Swedish), *monitor, animador* (in Spanish), *vykladac, pruvodce, informator, lektor* (in Czechoslovakian), *przewodnik, przewodnik muzealny, demonstrator* (in Polish).

In some cases – small contexts, typically – explainers carry out all the aforementioned tasks and sometimes even some more, from selling tickets to repairing laboratory instruments. In other cases – larger contexts – different staff members take care of different activities: for example, skilled explainers plan educational laboratories, while less expert ones are present in exhibition rooms and guide tours.

Explainers can be permanent museum staff members, with full-time open-ended contracts, or they can be casual workers who are explainers as a second job. They can be students, volunteers and researchers who agree to meet the public upon special occasions.

Interfacing with the public

In spite of these differences, an explainer is the human interface between the museum and the public. That makes his role crucial both from an educational point of view and from that of the welcome. It is often partly due to the charm and communication skills of an explainer if a school visit proves successful and leaves students enthusiastic about it. Complex objects or exhibits, or exhibitions about current scientific research dealing with particularly difficult subjects, become comprehensible and appealing because the explainer succeeds in operating as a direct intermediary between the knowledge contained in the object or exhibit and the visitor's personal learning. In open-air performances such as festivals, that invade different city areas with their initiatives - frequently rather far away from each other -, explainers are the evident signature of the performance, its recognizable brand.

What we have just said clearly shows how essential explainers are - yet sometimes these professional figures are underpaid, little considered or undertrained. However, their professional situation is not generally known and certainly not written about a great deal in international literature. There are data on how many explainers there are, who they are (age, gender, background) and what training they receive. But these data are limited. A generalization of the characteristics of explainers is consequently difficult. Very few studies have dealt with the meaning of their communicative role or have tried to determine its impact.

There are some studies that bring a contribution to the subject, though. For example, Leonardo Alfonsi's review of international literature, starting from the behaviour of explainers operating in three important science centres (Technique, in the United Kingdom; Città della Scienza, in Italy; Exploratorium, in the United States).³ The research provided indications for a more effective action of explainers as interpreters of hands-on exhibitions and *trait d'union* between exhibit designers and the public.

Besides, a study of the British Interactive Group⁴ collected quantitative data on the presence of explainers in the United Kingdom. If some data proved valid for the whole of Europe as well, they would provide interesting food for thought and ideas for research lines:

- According to this study, for instance, in 2001 two thirds of explainers in the UK were women. Is it a female profession then? Why and with what consequences?
- As far as age is concerned, two peaks were found in the distribution of the sample, identifying two categories with very different training and motivation characteristics: newly graduated

- young people and pensioners. How can two so different groups be reconciled in the same working team? What are the differences in their communicative effectiveness?
- In 55% of the analyzed museums, explainers leave the place for other jobs after some time, while in 40% of the cases they do not consider this a lifetime profession. Is it just a transitional job, then? Is that seen as an advantage or a disadvantage? What does this constant turnover determine? If young explainers later become researchers and scientists, how can this experience in public communication become useful for their future working life as scientists?

This last point, and especially how to train explainers to make them better interpreters in the science-society dialogue, is the subject of a European project named DOTIK:⁵ European Training for Young Scientists and Museum Explainers.⁶ Among other things, the project also aims at collecting data on the European situation as regards museum explainers. The results are going to be published over the next few months. Other just completed or still in progress European projects, on the other hand, aim at studying and experimenting best practices in the school/museum relationship: PENCIL⁷ and SMEC (School-Museum Cooperation for Improving the Teaching and Learning of Sciences).⁸ Although these projects do not specifically investigate the role of explainers, they contribute to the study of the educational aspects of this professional figure, while various museums, such as the National Museum for Science and Technology Leonardo da Vinci, in Milan, try to find ways to improve the vocational training of explainers, beside reflecting on their role in educating the public about science.

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Notes and references

¹ Available at: <http://www.ecsite.net/new/ac05_index.asp>

² L.S. Vygotskij, *Thought and Language*, The M.I.T. Press.

³ L. Alfonsi, "Interpreter/Visitor and Interpreter/Exhibit-developer Interactions: A Comparative Study", Dissertation for the Master Course in Science Communication, University of Glamorgan and Techniquet, 2000.

⁴ . Love-Rodgers, K. Bryony, *A Survey of Explainers Management in Interactive Centers*, British Interactive Group, UK, 2001.

⁵ Available at <<http://www.sissa.it/dotik>>

⁶ Matteo Merzagora, "ECSITE newsletter", October/November 2005, available at: <<http://www.ecsite.net/new/newsletter.asp>>

⁷ Available at: <http://www.xplora.org/ww/en/pub/xplora/nucleus_home/pencil.htm>

⁸ M. Xanthoudaki (ed), *A Place to Discover: Teaching Science and Technology with Museums*, Fondazione Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci with the support of the European Union, Milano, 2002. Available at: <www.museoscienza.org/smec>

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