

## **Parallel Session 21: Science Weeks: Evaluating Experiences**

### **WHAT IS THE IMPACT OF A SCIENCE FESTIVAL ON ITS VISITORS?**

*Laura Grant<sup>1</sup>*

<sup>1</sup> *Science Communication Unit, Department of Physics, University of Liverpool, Liverpool L69 7ZE. Tel: +44 151 794 6795, Fax +44 151 794 3444, e-mail [L.Grant@liv.ac.uk](mailto:L.Grant@liv.ac.uk)*

#### **Abstract**

In order to try and understand the impact that a Science Festival has on its visitors, a detailed evaluation of Cheltenham Festival of Science was conducted in 2003. Results showed that the Festival was a success according to its visitors, who tended to be those whose existing attitude towards science was positive. However, Festival events led to positive shifts in the cognitive and affective domains of visitors. This paper summarises the results of the survey of opinions, and raises questions about how to evaluate the impact of such a diverse event.

**Key Words:** Science Festival, Evaluation, Impact

#### **Context**

A number of Science Festivals take place each year in the UK. Each is different, but they typically consist of a diverse range of talks, debates, demonstrations and other events brought together by focusing the activities around a specific location. Cheltenham exploded on to the Science Festival scene in 2002, directed by two UK experts in Science Communication, Professors Frank Burnet and Kathy Sykes. Their vision was to create a compact, edgy Festival with an emphasis on dialogue.

#### **Methodology**

Using interviews, questionnaires, electronic voting, observation and media tracking, data was collected from over 700 Festivalgoers as well as speakers, sponsors, science communicators and media representatives. The survey largely excluded the schools events and their visitors. A follow-up survey was also conducted 6 months after the Festival.

#### **Results**

The second Cheltenham Festival of Science took place from 4-8 June 2003. Over 13000 tickets were sold for talks, debates and other structured events,

and many more visitors took part in the free hands-on activities in the Discover Zone.

### *Festivalgoer Demographics*

Over half of the survey respondents were over the age of 45, although all age groups were represented. The gender balance was equal, and half of Festivalgoers were from the ABC1 demographic, with significant proportions being retired, or students. Festivalgoers were found to have a higher than average level of education, and were likely to read broadsheet newspapers and listen to Radio 4.

A large majority of Festivalgoers were found to have positive opinions on Science before attending the Festival.

### *Festival Impact*

The Festival generated a large amount of media coverage, with 27 articles in the national press, and 30 articles in the local and regional press.

Most Festivalgoers spent more than one day at the Festival, with around a quarter spending four or more days. The Festival was successful at both entertaining and educating its visitors, and it was generally felt that events were pitched at the right level scientifically – although some visitors felt that the Festival was aimed primarily at children. A significant proportion of Festivalgoers felt that their attitude towards Science had changed after attending the Festival, and all of the shifts in attitude were positive. Interestingly, results indicated that individual talks or events were seen to have educational value, while the “Festival Experience” as a whole was likely to lead to shifts in attitude towards Science.

The talks and debates were well received, with a number being sold out. The Discover Zone (which had no entry charge) was the most-visited part of the Festival, and was most popular with visitors who had not booked tickets in advance. The results also showed that this group of visitors were more likely to have a neutral or negative opinion of Science, so the Discover Zone seems a good way to encourage their engagement.

The Science Cafés were an excellent means of engaging Festivalgoers in discussion of Scientific issues in an informal and non-intimidating environment. A number of respondents who had never taken part in similar discussions said they felt comfortable getting involved in the debates. The “Evolving Art” project, where Festivalgoers coloured in the individual pixels to make up a mural, also provided a setting for impromptu discussions between Festivalgoers.

Overall, the majority of respondents said that they would be continuing to discuss the issues raised at the Festival once they had left, and a vast majority (97%) were keen to attend future Science Festivals

### **Conclusions**

Responses to the Festival were overwhelmingly positive, and it was found to be a high quality, focused event.

The venue helped the public gain confidence in accessing Science, as both the Town Hall and Everyman Theatre were public spaces with no link to Science. Small improvements to the venues, such as air conditioning, would improve the Festival experience for visitors.

The Festival had limited success in attracting inattentive audiences, however Science Communicators felt it fared far better than some other Science Festivals. The Festival also succeeded in attracting audiences who had previously engaged in the Arts via other Cheltenham Festivals.

Members of the Science Communication community involved in the survey were unanimously impressed with the Festival.

Members of the follow-up sample had positive opinions about the Festival and Science in general. Many (79%) could recall the names of talks and debates attended, and the majority (78%) could remember discussing particular issues that were raised at the Festival afterwards. Over half of the follow-up sample (52%) said that attending the Festival had prompted them to actively seek out more information about Science, especially by buying books and using the internet.

## **Discussion**

It is clear that the Festival was viewed as a success, and the results of the follow-up survey indicate that it motivated some visitors to become further engaged with Science. Is this, however, enough to justify the existence of Science Festivals, or would resources be more effectively spent on different Science Communication activities, for example role model schemes or media campaigns? Is a regionally focused Science Festival more or less effective than a nationwide Science Week? Before these questions can be answered, it is necessary to consider the way that the impact of different activities can be measured and compared.

