

Chips for Everyone – an innovative approach to development of public engagement events

Dr Jane Magill and Dr Scott Roy
University of Glasgow, UK

*Robert Clark Centre for Technological Education, St Andrew's Building, 11 Eldon St
Glasgow G3 6NH, UK
j.magill@elec.gla.ac.uk*

Introduction

Chips for everyone is a successful project funded by the Engineering and Physical Science Research Council, (EPSRC) under their Partnerships for Public Engagement (PPE) funding programme. Activities including workshops and drop-in events have been developed for diverse audiences ranging from school groups to shopping centre customers.

The focus of the project is semiconductor technology; a technology which impacts on the daily lives of everyone and yet is largely unseen. The activities seek to engage, engender interest and promote informed discussion about this technology and engineering in general.

Development of activities

Development of the activities is innovative, using the complimentary skills of research academics and students in technology initial teacher education (ITE). Initially, ideas were generated by groups of 3rd and 4th year students training as technology teachers at the University of Glasgow. The student groups presented their ideas to an audience of fellow students, research academics, and science communicators. The ideas agreed to be the most promising were subsequently developed further with students and researchers working collaboratively. This structure has been mutually beneficial; students had an opportunity to develop their professional skills beyond normal classroom activities, and the activity ideas they presented were generally well matched to the target audiences and well received by academic researchers and school pupils. All activities focus on three aspects of the technology;

- What are silicon chips, what do they do and where do you find them?
- How small is a semiconductor circuit and what does it look like in "real life"?
- How are the circuits made?

Activities venues and presenters

Our activities have particular strength in two areas; firstly they are designed to be flexible so that the same basic material/equipment can be tailored to suit different audiences, venues and workshop durations and can be tailored to suit. Examples of this range in flexibility include; "captive" school audiences at *Make it in Scotland* Careers Roadshows; mixed age or family visitor groups at *Tomorrow's World Live* and casual passers-by at shopping centres. Our approach requires careful design and training for presenters especially when dealing with mixed age/ability audiences. So far we have worked with just over 40 presenters at 20 venues throughout Scotland.

Monitoring and Evaluation

Evaluation of *Chips for Everyone* demonstrates the good practice and good partnership that have made this such a successful the project. Evaluation takes place at all stages of the process; activity evaluation, presenter evaluation and participant evaluation. The principal findings of our evaluations are;

- 95% of participants rated workshops as excellent or good in the categories; interesting, enjoyable topical and educational.
- Most participants felt they could explain how silicon chips are made to family or friends.
- 90% of participants had not attended this type of activity previously while 100% would like to do it again and would also recommend it to a friend.
- 76% of presenters had presented to public audiences before, 100% enjoyed the experience and 88% would do it again. They would also recommend involvement to others.
- The most effective and enjoyable aspect of the events is the hands-on activity which should be expanded.