

THE UNIVERSITY of EDINBURGH

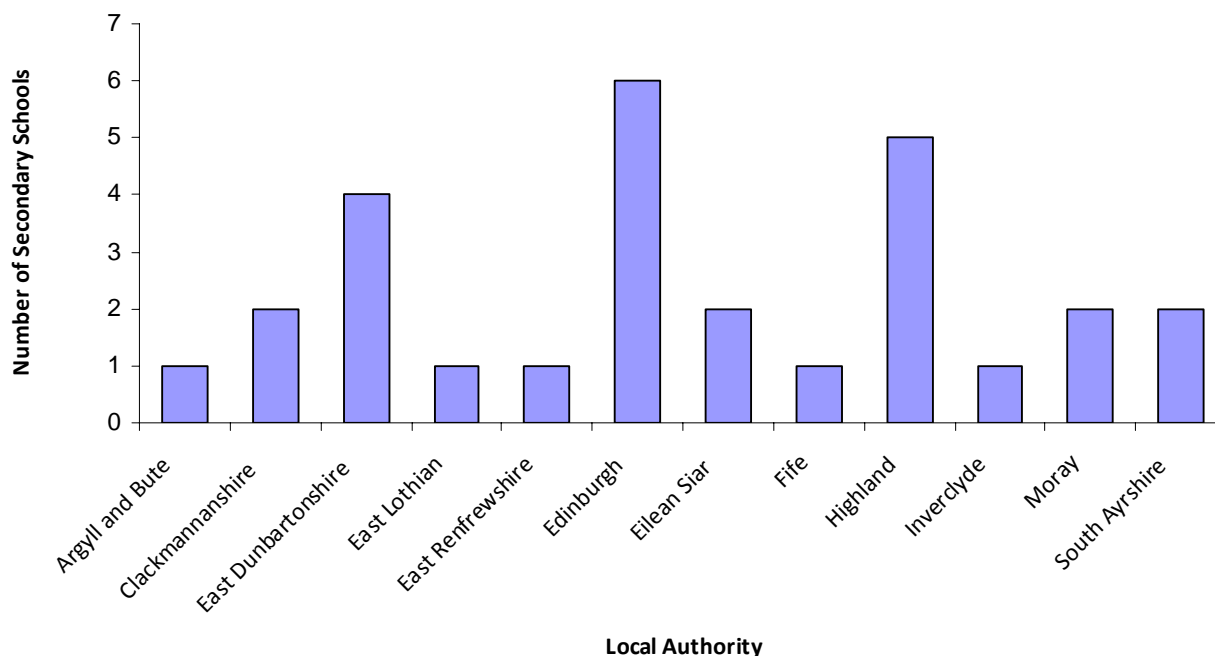
SCI-FUN Roadshow 2010/11 feedback report

A background to this paper

The purpose of this document is to summarise the feedback received in relation to our Roadshow scheme.

The Roadshow visited twenty-seven secondary school venues across Scotland, conducting sessions for twenty-eight secondary schools and one primary school. The graph below shows the spread of visits.

Roadshow visits 2010/11



Evaluations of the Roadshow programme during this schedule were provided by contact teachers from visited schools through an online questionnaire. Teachers could leave feedback anonymously if they wanted or provide agreement for their views to be used publicly. In total, thirty respondents provided their views on the SCI-FUN Roadshow in 2010/11.

The headings contained in this paper replicate the questions asked within the online questionnaire. A slight change to this structure occurs for question 3: questions 3a and 3b (as they are presented here) were asked together in the original questionnaire with only a single space available for responses. The answers to question 3 have therefore been separated in this document to enhance clarity.

To clarify, this report does not include information relating to our primary school project (SCI-FUN Primer) or to additional outreach events that were separate to the Roadshow activity (e.g. the CCS Interactive at the All-Energy conference; IET Christmas lectures; etc). It also does not include feedback from our participation in the Edinburgh International Science Festival: this is reported separately by Discover Science.

(Please note that percentages quoted in this document are rounded to integers and expressed as a proportion of the number of respondents for that particular question, not for the survey as a whole.)

A summary of the feedback obtained through the online questionnaire

1. Using the following scale (*from 1 – Very Poor up to 5 – Excellent*), how would you assess the knowledge and professionalism of the staff that visited?

Out of a maximum score of 5, the Roadshow team scored an average of 4.93 for both knowledge and professionalism, with no answers less than 4 for either part of the question and all thirty respondents providing their view.

We feel this shows that schools continue to have an extremely positive view of the SCI-FUN staff, which reflects very well on the University of Edinburgh, and on its efforts to engage schools and the wider community. (For comparison, the respective averages in 2009/10 were 4.88, from seventeen respondents, and 4.94, from sixteen respondents.)

2. Using the following scale (*from Greatly Decreased up to Greatly Increased*), in your opinion, how has the SCI-FUN Roadshow visit affected the pupils' interest in studying science subjects at Standard Grade and beyond?

100% of the thirty respondents stated that the Roadshow had increased the interest of the pupils in studying sciences further, with eight respondents (27%) believing that there would be a great increase in the level of interest. This compares favourably with 2009/10, where 88% of the seventeen respondents indicated that there would be an increase in science study interest.

We feel this certainly adds to the evidence that the key reasons for schools securing SCI-FUN visits are to support the subject choice process as well as the science curriculum as a whole.

3a. Which part of the experience do you think the pupils enjoyed the most and why?

100% of the twenty-nine respondents to this question explicitly stated that the hands-on exhibits were a key reason why pupils enjoyed the Roadshow experience. The other main aspect that was positively commented on was the presentations, with 26% of the respondents mentioning the Senses Show and 24% highlighting the presentations generally. 17% of the respondents indicated that the combination of information/presentations with the hands-on exhibits was the most enjoyable part of the scheme. Other aspects – including the involvement of seniors in the programme – were also appreciated.

We feel this strongly shows that the hands-on activities are a crucial part of why the Roadshow is well-regarded in schools. This is emphasised here, since – although this is an open-ended question with respondents given freedom to comment on any aspect – every response explicitly mentioned the hands-on activities. (In comparison, for the same question in 2009/10, 88% of respondents commented on the hands-on exhibits.) It is also clear that this is not the only aspect considered important, since a number of respondents also commented positively on the presentations that are part of each Roadshow session.

3b. How could a visit be improved for the S1/S2 cohort?

Only seventeen responses were given to this question (in comparison to twenty-nine for question 3a), and 24% of those were statements indicating that the Roadshow scheme should remain as it is. Of the thirteen comments that included suggestions for improvement, four were based on changing the presentation/hands-on balance: less time for presentations, more time for the hands-on activities. This matches the number that responded in a similar manner in 2009/10. Of the other suggestions that were made, four of the comments were centred on different aspects of the subject choice presentation.

We feel that the comments here show that the Roadshow scheme works extremely well in schools, since fewer than half of the total respondents put forward suggestions, and of those there was not anything that would require a major change in the emphasis for what is currently developed for the project. A review of the timings given to each section of a session should be undertaken, however, to ensure that we deliver the best impact for schools. The comments on the subject choice presentation indicate this is considered an important element, but there is no majority view on how to improve this, perhaps as a result of the current uncertainty caused by the changing curriculum. This will be reviewed when appropriate.

4. What approximate figure do you believe a Roadshow visit is worth to your school?

Of the thirty respondents to this question, 57% indicated the £401-600 bracket, which was in line with the usual visit fee of £500 in 2010/11. In addition, 23% stated £201-400 with 7% indicating greater than £1000.

We believe that many respondents could have been led by how much funding they had to find to secure a visit in deciding on their answer to this question. Some schools received an additional subsidy from the Holmes Hines Memorial Fund (reducing the cost to them), whilst another had to pay £800, since their visit had to take place over three days – more than the usual maximum.

Of those indicating greater than £1000, one was understandably in Eilean Siar (where they would expect to pay additional costs for transport), and the other was surprisingly in East Dunbartonshire.

5. From your personal point of view, how could SCI-FUN improve to match schools' requirements more closely? For example, which supplementary materials would be of interest to you or which topics would you like to see covered in future presentations?

There were twenty-five opinions shared, with only sixteen of these responses offering suggestions for improvement.

Of the sixteen comments making suggestions, only three areas were mentioned more than once. Matching all elements of the Roadshow more closely to the Curriculum for Excellence was mentioned by three respondents, but all recognised that this was a rapidly changing aspect at the moment, so this presented challenges. Two respondents stated increasing the chemistry content of the Roadshow, and a further two mentioned the planning and coordination of visits. The majority of other suggestions centred on potential topics for future presentations, but there was no single theme within these.

We feel these responses once again show that the Roadshow scheme has continued to be a high-quality programme meeting the majority of needs of teachers and pupils across the country. We recognise, however, the main areas of improvement as indicated by the responses to this question.

We are reviewing the content of the Roadshow to make the links to the Curriculum for Excellence more explicit in the information given to teachers. We are investigating ways of introducing more chemistry into the scheme, and have had discussions with the School of Chemistry and a representative of the Royal Society of Chemistry in the 2010/11 academic year. The ongoing issue of the coordination of visits is a frustration caused mainly by finances. We are continuing to work on securing additional funding that will make school visits more affordable for schools, further reducing the main obstacle to getting the Roadshow out to pupils across Scotland.

6. Would you be interested in hosting the SCI-FUN Roadshow again in future years?

100% of the twenty-nine respondents to this question would be interested in hosting the Roadshow again in the future. 66% of these, however, indicated that this would be dependent on enough funding being available to meet the visit fee, which was emphasised by the additional comments provided.

7. Would you consider recommending the SCI-FUN Roadshow to teachers in other schools?

Twenty-nine respondents provided an answer to this question: 100% indicated yes, an improvement from 94% in 2010/11.

We feel that the responses to questions 6 and 7 provide further evidence of the strength of the Roadshow scheme in what it delivers, but it also confirms that funding is a significant obstacle that we need to reduce, in order to open up the opportunity for more pupils to benefit from the project.

8. For the following audience groups, the carbon capture and storage interactive (CCS Interactive)...

	S1/S2 pupils	S5/S6 pupils	School teachers
...has increased awareness that carbon dioxide released into the atmosphere is a significant problem.	85% (23)	56% (15)	48% (13)
...has increased awareness that carbon capture and storage may help to control this environmental issue.	81% (22)	70% (19)	56% (15)
...provides an effective demonstration of one form of carbon capture and storage technology.	63% (17)	63% (17)	70% (19)

Please note: the number in brackets is the number that agreed with that statement for the relevant group.

Out of thirty respondents, twenty-seven provided views related to the above statements.

The CCS Interactive was a significant research-based public engagement project, funded by the EPSRC, and worked on as a collaboration between SCI-FUN / FUSION, the School of Engineering and the School of GeoSciences, all at the University of Edinburgh.

We feel the views of the respondents clearly show that the project was successful in the main objectives of increasing awareness of the carbon dioxide issue in our key S1/S2 cohort, as well as highlighting that carbon capture and storage may help to control the problem. The responses also show that the majority of the older audiences also benefited from the experiences.

Fewer respondents, in comparison with the answers for the first two parts of this question, felt that the CCS Interactive was effective for S1/S2 pupils – although it must be recognised that nearly two-thirds believed that it was still an effective demonstration. Based on the additional comments of the respondents, we feel that the main issues were the complexity of the topic, combined with the pace of delivery for some groups. This may have been due to the fact that the CCS Interactive was demonstrated towards the end of the Roadshow session, when a lot of information had already been delivered to the pupils, and time may well have been running short for a variety of reasons.

As stated earlier in this document, the timing of each section in the Roadshow scheme should be reviewed, and the planned content may need to be altered accordingly.

9. This question elicited the views of the contact teacher towards various aspects surrounding carbon capture and storage. This was to help inform the project report for EPSRC, the funders of that particular project. Therefore, this question does not evaluate any aspect of the SCI-FUN Roadshow itself, and is not included in this feedback summary.

The responses to questions 8 and 9, however, suggest that SCI-FUN is well-placed to introduce materials relating to the societal aspects of University of Edinburgh research, which may then be discussed back in the classroom after a visit. We need to consider how to build on this in future Roadshow programmes.

10. Comments from contact teachers that have allowed their views to be shared in this report.

Another outstanding visit from the SCI-FUN team! Our S2 pupils were both amazed and enthralled by the slick presentation and engaged enthusiastically with the practical activities. SCI-FUN has an intrinsic place in helping to promote the choice of two (or even three) sciences here at Bearsden Academy as our presentation statistics bear out. S2 pupils leave the event enthused for the sciences and our senior pupils also benefit from the opportunity to demonstrate their abilities as 'confident individuals' and 'successful learners'.

Richard Ford, PT Physics, Bearsden Academy, East Dunbartonshire

SCI-FUN is a very positive experience for S2 pupils. It allows us to discuss science as a whole school and gives a view on science outside school that can be difficult for teachers to do. It is extremely professionally presented. The organisation of the event prior to the visit is so smooth that it makes it very easy for me to organise in school. The presenters are very good and work very well with our pupils. They are terrific. We fully support the SCI-FUN Roadshow and think that all S2 pupils would benefit from the talks and hands-on activities.

Liz Anne Jaffray, PT Physics, St Ninian's High School, East Dunbartonshire

As always – very professional. SCI-FUN is an excellent showcase for science and, as society demands more of the subject, it would seem to be sensible that projects such as this should be permanently centrally funded. The new 'hands-on' displays looked good! Thanks again to the team.

Ian Haining, Tynecastle High School, Edinburgh

Extremely worthwhile experience, pupils are enthusiastic and in awe of some of the Science experiences. We would always wish to take part in the Roadshow, but funding is becoming increasingly difficult for all...

Allison Henderson, PT Science, Ullapool High School, Highland

Having recently taken a group of pupils to the Science Centre, SCI-FUN offers as much impact for substantially less cost per pupil.

D Dalglish, PT Physics, St Augustine's RC High School, Edinburgh

One of the most useful presentations we have had in the school. Pupils really enjoyed the hands-on exhibits and are already asking when the Roadshow is coming back. Excellent in raising awareness and addressing the importance of science and subject choice.

Dr Rob Campbell, PT Chemistry, Lossiemouth High School, Moray

Hands-on practical sessions and thought-provoking presentations. I would like to thank SCI-FUN for coming to the Western Isles and putting on an excellent show that was greatly enjoyed by all.

Hamish Budge, Education Support Officer, Eilean Siar

I can't wait to do science.

P7 student, Kinlochbervie High School, Highland

An enjoyable and well-organised Roadshow that made good use of the senior pupils. The time for each part of each session was perfect, holding the interest of even the restless pupils. Thanks.

Science Coordinator, Clackmannanshire

S1 participants gained hugely from the Roadshow in terms of Science content and also from their interaction with senior pupils and SCI-FUN staff.

Jane Parker, PT Science, Bell Baxter High School, Fife

Absolutely professional and highly recommended!

S Sutherland, PT Science, Kinlochbervie High School, Highland

Don't think you should try to change it. If it isn't broken... A great job, well done.

Anthony Tuffery, Depute Headteacher, The Nicolson Institute, Eilean Siar

If they had events like this when I was at school I might not have studied a second language.

A Christie, PT Modern Languages, St Augustine's RC High School, Edinburgh