

Educational visit evaluation 2010/11

Evaluation overview

The educational visit programme is currently evaluated using a paper based survey given to the teacher or visit organizer on the day of their visit. This survey is also available online via Survey Monkey.

The findings of this evaluation are taken from surveys completed by schools visiting the Sanger Institute during the 2010/11 academic term. 47% of schools who visited during this period completed and returned an evaluation form. The results of the evaluation forms are taken into account and where appropriate acted upon to continuously improve the school visit programme.

Findings

Visit demographics

The majority of school visits (76.5%) were with post-16 students, i.e. AS or A2 students, however groups with KS4 students and international students did also visit.

71% of groups were returning visits and 29% were new visitors to the Sanger Institute.

Visit programme content and quality

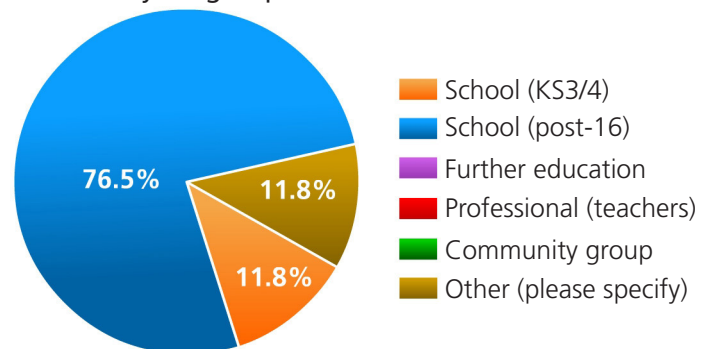
A standard school visit takes 2½-3 hours and can include an introductory talk to the Sanger Institute, a talk by a Sanger Institute researcher, a tour of the facility, an activity and an ethics discussion. All schools surveyed had a talk by a researcher, a tour and an activity. 30% chose to have an ethics activity and 5% chose to have a computer-based activity.

Talks by Sanger Institute researchers

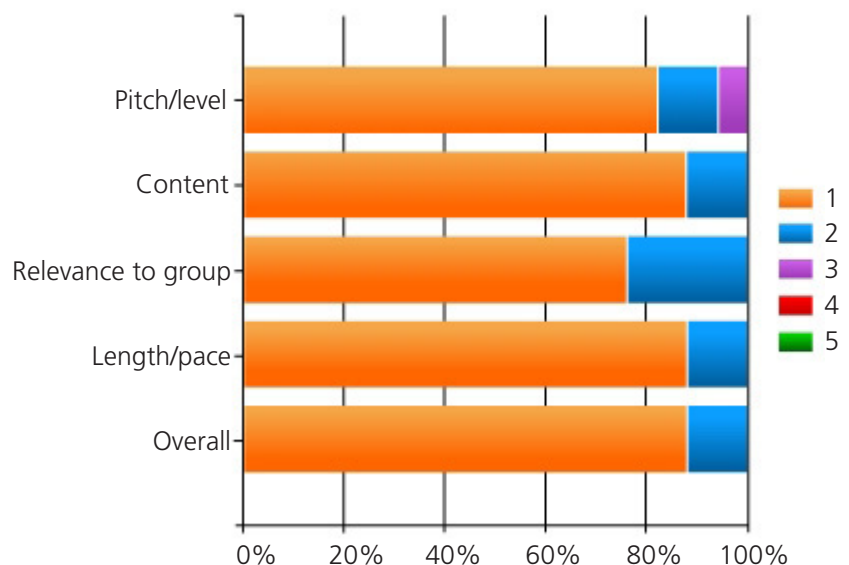
Overall, talks by Sanger Institute researchers were regarded as excellent. Over 80% of the respondents felt that the pitch, content and relevance of the talks were excellent. Feedback on the talks included:

- *"Fantastic – students really engaged."*
- *"Very applicable to A level and adapted on the day to better suit the group. Fantastic cutting edge content that I know was very much enjoyed by many students."*
- *"The students really enjoyed this talk!"*

Was your group:



Please rate the following aspects of the talk: 1 (excellent) - 5 (poor)



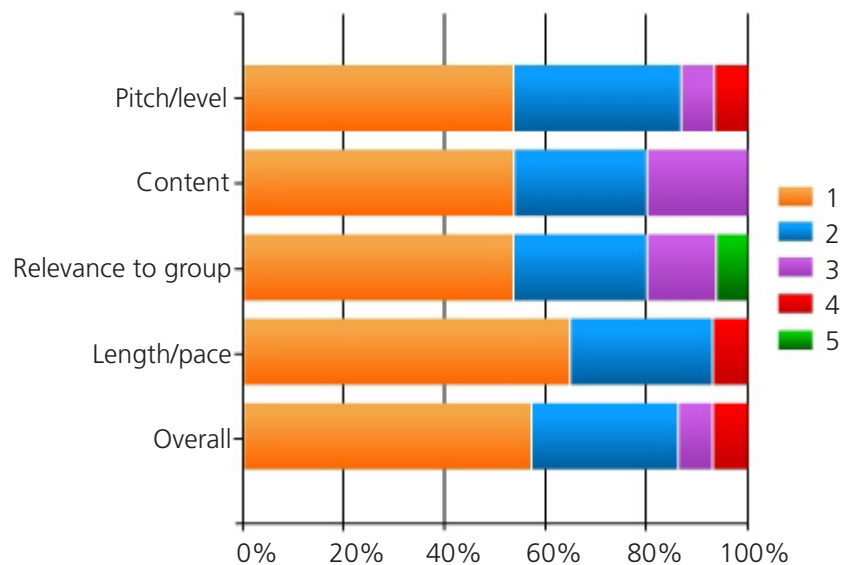
- *“Challenging, but sufficiently well explained to be comprehensible to the majority of students. A few of the least able probably lost the thread at some points though. Good visuals used to help interest and understanding. And interesting.”*
- *“Very good talk. Good details about the problem – confident talk which was clear and carefully targeted for the level of understanding of a year 12 student. Very useful as a stimulus for the visit/issue report that Y12 Salters Nuffield A Level Biology students have to produce. One of the key criterium for this is what scientists do.”*
- *“Very, very interesting – pitched just at the right level.”*
- *“Awesome, really impressed.”*

Tours of Sanger Institute

The tours were more variable in their feedback. 85% of respondents rated the overall tour experience as good or excellent. Over 80% of respondents rated the pitch, content, length and relevance to group as good or excellent, however a small minority 5% rated the pitch, relevance and length as poor. These tours are being reviewed to see if they can be improved. Feedback from the tours included:

- *“Very friendly. Good knowledge of the site and its facilities. Very enthusiastic about what she was doing.”*
- *“Great insight into problems with development in this field.”*
- *“The details of how sequencing is done are difficult and they probably found that hard to understand. Otherwise it was interesting, varied and impressive.”*
- *“Some exhibits switched off or not available.”*
- *“The primary problem was the tour leader’s voice which was just too quiet for most of us to hear. Also, he assumed too much knowledge of sequencing technologies.”*
- *“I think I enjoyed it a lot more than the students – they said it was too long and they wanted to see the labs!”*
- *“Interesting and enthusiastic.”*
- *“Had to rush a bit.”*
- *“Too fast (but we had run out of time!). Somehow the tour could be more linked to the students’*

Please rate the following aspects of the talk: 1 (excellent) - 5 (poor)





interests, e.g. seeing some of the computing facilities or meeting some scientists."

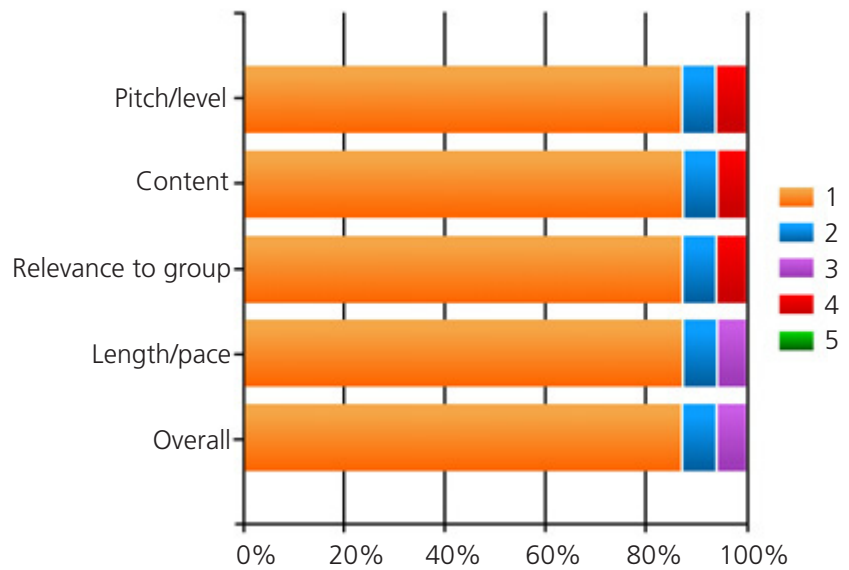
Classroom activities

Overall, the activities run by Sanger Institute staff were rated as excellent. Over 95% of respondents rated the pitch, content, length and pace and relevance to group as excellent or good.

The following comments:

- "Excellent. Engaged students, feedback was excellent."
- "Absolutely brilliant activity that I am going to use myself back in school!"
- "This was a very successful session all round – and the one the students spoke most positively to me about."
- "The students learnt a lot."
- "A really good activity that makes all students contribute as they have different sections of sequence. And it gets down to the details of the effects of mutation on DNA sequence in a very specific and useful way."
- "Excellent activity – team work and problem solving."
- "A brilliant talk – really interesting and stimulating. Excellent activity on identifying mutations."
- "Welcoming, supportive and enthusiastic."
- "Excellent activity."
- "The students felt that the activity could have been undertaken anywhere, whereas they wanted even more information on how the work of the Sanger Institute impacts on real life."
- "Brilliant."

Please rate the following aspects of the activity: 1 (excellent) - 5 (poor)



Ethics discussion

Of the 30% of groups that participated in an ethics discussion 100% of the respondents rated the experience as excellent. Comments from the ethics sessions include:

- "Opened up many threads of discussion."
- "Made pupils consider the pertinent issues."
- "Brilliant!"

Reflections on the visit:

100% of respondents said that the visit had met their and their groups expectations. Of the teachers surveyed 100% wanted to visit a real life research facility and bring science to life. 87% wanted to learn more about contemporary biomedical science and find out about the Human Genome Project. 73% wanted to ask questions of working scientists and improve understanding of how scientific research works. 53% wanted a better understanding of scientific careers.

All respondents found the visit:

- Stimulating
- Enjoyable
- Well organized
- A learning experience
- Suitable

All respondents agreed that they and the people in their group learnt something new at the Sanger Institute and would recommend a visit to the Sanger Institute to someone else.

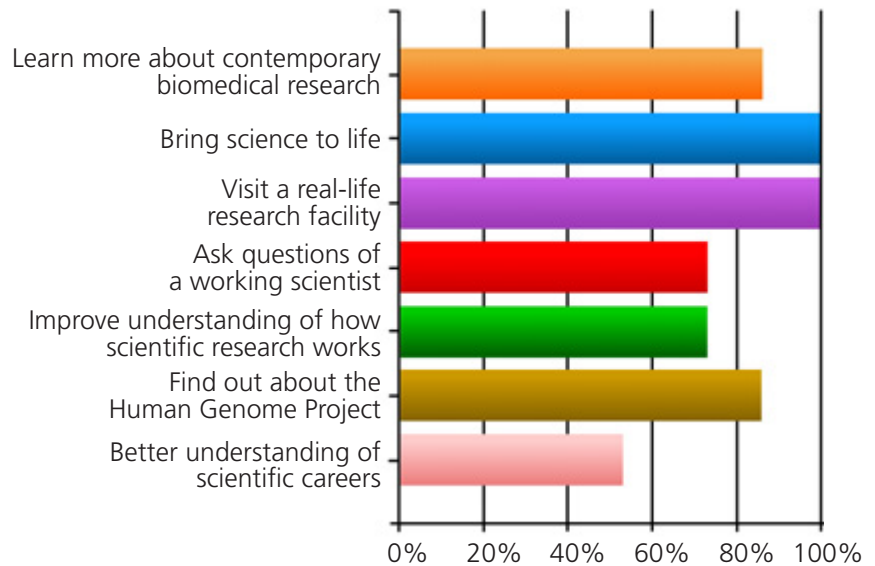
94% agreed that the visit stimulated them or the people in their group to find out more about biomedical science.

Highlights of the visit include the talks, tours and interactions with Sanger Institute researchers.

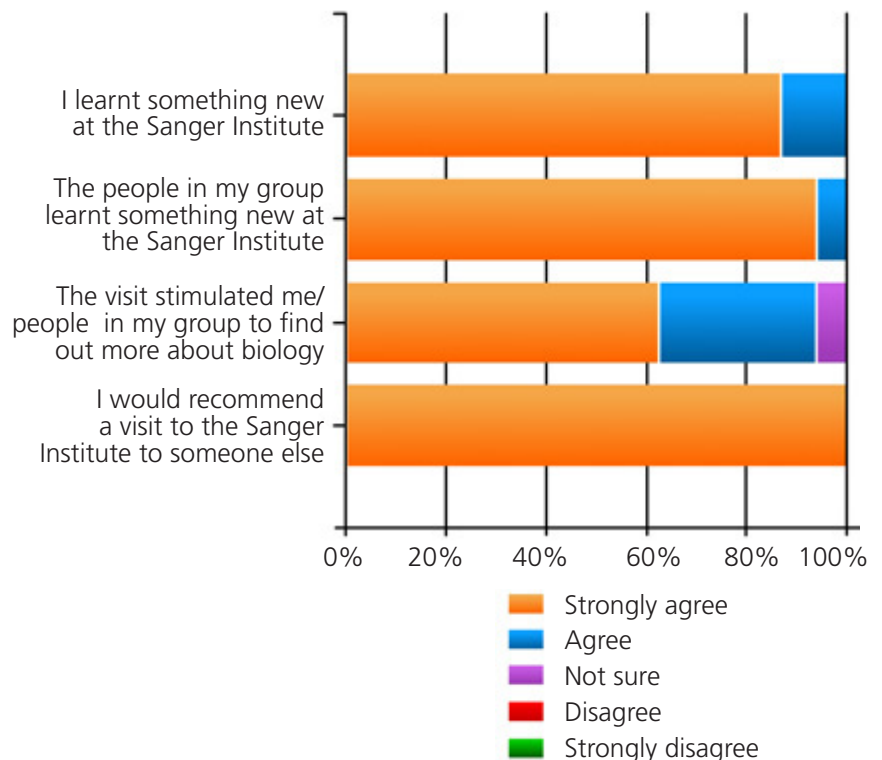
Comments included:

- *"[Highlight was] hearing about the new advances in medicine."*
- *"The tour of the campus. The visit from the Zebrafish scientist."*
- *"For me – the new automatic sequencers reeling off data in real time."*

What did you hope to get out of a visit to the Sanger Institute?



How far do you agree with each of these statements?





- *“Difficult to say as many good areas! The tour of the site and seeing the actual sequencers in action was very stimulating for the students.”*
- *“I think all the students enjoyed it – they all learnt a lot and they said it helped them a great deal with their A level course.”*
- *“It was all good. And one of the nicest things about visiting is that we are always made to feel welcome and the students can see scientists working – formally and informally. And the free tea/coffee and biscuits much appreciated! Also the Big Picture magazines, posters etc – very useful.”*
- *“Personally I enjoyed the visit – it is one of the best visits I’ve taken A level students to. As far as the students were concerned it was an excellent stimulus for them to start writing their issue/visit report for their SNAB AS coursework.”*
- *“The talks and activities were superb.”*

Areas where improvements could be made:

- *More opportunities for hands on learning. Ability to book specific topic areas (as ours changed from original booking). Option to carry out an actual lab activity – wouldn’t mind paying for this.*
- *More than anything, you need a clear, structured presentation on how Sanger sequencing works, pitched at 16-18 year olds (i.e. A-level).*
- *By allowing the students to do some practical work in the labs.*
- *Difficult to know – it was so good! Maybe see some scientists working in the labs?*
- *A ‘wet’ activity – show a live demonstration of an ongoing experiment (capillary in action?)*

What would teachers like to see in the future?

There is significant interest from teachers to see laboratories during the tour, demonstrations and for students to participate in lab-based activities, as well as computer-based activities and ethical discussions. This feedback will be considered and applied where possible to the 2011/12 academic year.

