

Risky Business

Exploring climate change and issues in science with young people

Context and aim

Risky Business, a schools theatre programme involving the assessment of risk in science and technology, was developed to respond to a need for practical citizenship activity for older secondary school and post-16 students, linking science and society. Theatre programmes have traditionally proved to be very effective in helping young people address some of the uncertainties in science, particularly in bringing clarity to the 'grey' areas between economic need and ethical ambiguity.

The main aims of the project were to:

- increase awareness in students aged fourteen and over of issues of risk in science, specifically environmental risk related to climate change
- increase students' ability to participate meaningfully in discussions about risk
- enable teachers and students to contribute to the policy debate on climate change
- encourage innovative teaching practices

The project centred around a play called 'The Silencer' which was performed by the Y Touring Theatre Company in 53 different schools for students aged 14-19. To maximise the experience, students took part in a discussion immediately after the play, which involved the actors remaining in character and being asked questions from the audience about the performance and about climate change in general. Students then voted on key questions using electronic voting handsets. Guidance notes and follow up

materials designed to fit with the national curriculum were provided for teachers.

The process

The project began in January 2006 with the identification of a writer and the recruitment of performers and some students to help the creative process. Publicity and marketing materials were developed and in March 2006, a creative workshop was held at which the writer and project team interviewed scientists, Government advisers and interest groups to further develop the play's scientific themes.

Schools and teachers were recruited to take part in the project and a professional course was developed for teachers to help them facilitate the dialogue with pupils. Rehearsals of 'The Silencer' began in February 2007 and school performances took place during March in England, Scotland and Northern Ireland. A final special performance was held at Westminster, hosted by Defra. The data gathered was then analysed, a final report written and the project evaluated.



Vital statistics

Project delivery organisations:

Centre for Science Education, Sheffield Hallam University (CSE), Isinglass Consultancy Ltd, Y Touring Theatre Company, Thin Air Productions Ltd, ThinkLab and People, Science and Policy Ltd

Duration of process: 16 months
(January 2005 to April 2006)

Number of participants: 3,500

Cost of project: £128,000
(Sciencewise contribution £63,000)

Key impacts

- Met national curriculum requirements for teaching and learning about climate change for one-third of participating schools
- Special performance held at Defra for 40 staff
- Report included extensive data on young people's views about climate change and options to address it

This project was funded through open competition, not commissioned to provide input into a live policy area.

Benefits and impact

Impact on students

Most students clearly felt the performance and workshop were inclusive and engaging, and provided a positive experience of discussing climate change in a meaningful way.

Students' knowledge of the issues increased noticeably in some areas, particularly in the contribution of methane to climate change, which was discussed in some depth in the workshop. The follow-up questionnaire filled in by students showed an increase in levels of concern about climate change and its reality. However, this could be partly a reflection of the dramatic content of the play, which some teachers felt was more character than issue based, and may have affected students on an emotional level.

Students' willingness to act on climate change also increased - they seemed happy for the Government to take action but were more wary about the potential impact of climate change on lifestyles.

Impact on teachers

Many teachers were positive about using theatre and performance to engage young people with science issues and to find out their views on areas that are likely to have a direct impact on their lives.

They valued aspects of the workshop and reported that the electronic voting handsets were particularly popular with students.

The continuous professional development (CPD) course, which was aimed at helping teachers facilitate the process, was not taken up and this element of the project was subsequently cancelled.

Benefits for policy makers

Risky Business has collected thousands of data sets from young people that will provide Government with an extensive analysis of young people's views on climate change and what they might want to see done about it.

The special performance to staff at Defra was very well received. Policy makers found it provided solid evidence of the issues young people find important, highlighted possible mechanisms for addressing the issues, and demonstrated the differences in response to key questions between young people and adults working in the climate change policy field.

“ In many ways, children inspire and shape the environmental debate. It is they who will suffer tomorrow the effects of our negligence today. ”

Alan Johnson,
the then Secretary of State
for Education and Skills

Speech to the NASUWT conference,
11th April 2007

Learning from the process

The long delay before the project was able to start (due to the need to secure matched funding) was considered an inappropriate way to address national policy needs. Learning from this and other projects led to the programme altering its policy from providing funds through an open grants scheme to making resources available to commissioning agents to procure deliverers.

Funding issues also meant that the CPD course to help teachers get the most out of the theatre visit and embed it within the curriculum, turned out to be prohibitively expensive. When planning this type of activity, the costs and how they will be met, need to be considered.

Once the CPD course had been abandoned, resources were put into providing high quality learning and guidance materials for teachers. This was a good use of the budget and would be recommended in similar circumstances.

What would be done differently?

- The project suffered through lack of an oversight panel or advisory group to help inform key decisions
- The project needed to be promoted more vigorously to teachers and policy makers
- Not enough time was available to develop and test multiple ideas
- The limited time for research and concept development, resulted in a play that was felt to be too long by some teachers
- The workshop could have focused more on factual information - having the actors in character distracted students from the issues.

Contacts and links

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Links:
CSE Sheffield Hallam University:
www.shu.ac.uk/research/cse/
Y Touring: www.ytouring.org.uk/
Isinglass Consultancy Ltd:
www.isingconsult.co.uk

Find out more at: www.sciencewise-erc.org.uk