

# Thinking outside the box: learning from a school research project

When students do a small research project at school, who is doing the learning? Is it the students or the teachers? **Helen Crawley** and **Alison Lawson** report on their involvement in the Thinking Outside the Box day at St Helen's School in Northwood.

Every year, St Helen's School in Northwood has a day set aside for students in year 8 (aged 12 to 13) to try to solve problems that might arise in the wider world beyond the school, challenging them to 'think outside the box'. The purpose of the day is to give the students the chance to appreciate how to learn and research more effectively. Expert speakers from a range of disciplines are brought in to set the students questions or tasks, so they can use problem-solving strategies, and apply their knowledge, skills and understanding in a real-world situation. The objectives of the day are to:

*it was important that the research was relevant to the students and/or their school*

- present a challenge
- promote team working
- encourage problem solving
- enhance independent learning
- improve communication skills.

Working in groups of three or four, the students used the library, the internet, telephone and interviews with staff and students to tackle the problem or task they had been set. Each group then had to give a presentation to the relevant expert, to practise their presentation and ICT skills, such as filming their own video footage and using Powerpoint.

## The research project

We were invited as external experts and, inspired by Jess Lobo's article in issue 38 of *pre* (School council research), we decided to set a research project for the students. What we really wanted to do was to get the students excited about doing research. We wanted them to see how research can be relevant and important to them, and how people can learn from research.

## Preparation

We wrote a short handout for the students. We knew they would only have the morning session to do the project, so the handout had to be quick and easy to read, so they could maximise the time spent on the project itself, including preparing their presentation for the afternoon session.

The handout explained what research is (see Box 1) and how they could do it using different methods. It was important that the research was relevant to the students and/or their school. We gave some examples of research questions, including:

- What do students want to do when they leave school?
- What is the most popular school club, and why is it popular?
- Does your school provide healthy lunches and snacks?

### Box 1 What is research?

Research is finding out about something. It can be answering a question, solving a problem or finding out more facts about a subject.

We gave the students a list of questions to answer, when putting together their presentations. We hoped giving them a template to work with would make it easier to structure their work.

- What did you want to find out?
- Why was it important to find this out?
- What did you find?
- What conclusions did you make, based on your findings?
- What recommendations can you make?  
How can your research make a difference to you or the school?
- What do you think you have learned through doing this project?

The handout pointed the students to various sources of information on the internet and in the school library, and also gave some examples of how to use questions in interviews and questionnaires.

### Presentations from the student groups

At the presentation session, all the students seemed very excited about their projects, and were keen to make their presentations to the group. It sounded like they all had some fun doing the project. There were four groups, and the subjects they had researched were:

- Greed – should it be an unknown emotion?
- Improving the school tuck shop
- The National Curriculum versus St Helen's
- Should school staff wear a uniform?

The four presentations were all very good – the students were confident and well



the students seemed very excited about their projects

organised, speaking clearly about their subjects. Three of the groups also produced a written report of one sort or another, while one group preferred to feedback orally about how they approached the task and what they learned from it. To see the groups' reports, visit [www.pre-online.co.uk](http://www.pre-online.co.uk).

### **Greed – should it be an unknown emotion?**

The group used internet research, a library search, an interview with the head girl and a 'quiz' questionnaire with fellow students. They found that 70% were not greedy, 20% were quite greedy and 10% were greedy.

*they had all found it difficult to draw conclusions from their findings*

They gave no definition of 'greedy', although the group had a shared understanding, based on what they felt was

right with regard to sharing the world's resources. There was a strong humanitarian angle to their project, showing a desire to make the world a better place by eradicating greed from the wealthier nations.

### **Improving the school tuck shop**

The group used the library and the internet to find out about healthy diet and the content of snack foods. They also interviewed the school lunch staff and some fellow students. They found that 'the majority of the pupils interviewed said that they love eating chocolate and crisps at break, some said they like fruit', while their library search told them that 'it is vital to have fruit, vegetable and protein in your daily diet'. In response to their findings, the group suggested starting up a snacks company to spread the word about healthy snacks.

### **The National Curriculum versus St Helens**

The group used the National Curriculum website and other internet search results,

interviewed staff and talked amongst themselves to brainstorm their own views. They admitted that their research was 'mainly based on individual and personal opinions on what we thought about the topic we had chosen rather than basing our interviews on a whole group of people and getting simple answers'. The group felt strongly that the National Curriculum was not as wide as that at their own school. They found that their project led to 'a lot of debate and disagreement, not just among us but with teachers as well as different sources on the internet'.

### **Should school staff wear a uniform?**

The group shared the view that staff should wear a uniform, and set out to gather information to support their view. Interviews with staff and students gave mixed opinions. The group presented their designs for a new school uniform for students and staff.

### **Was this real research?**

We do not pretend that this was robust and rigorous research. The project was conducted with very little time, and the students had only our handout to explain what research was all about. However, there was evidence of research, and of the students' excitement about being able to investigate a subject that meant something to them.

All the groups had gathered some information, but most of it was subjective rather than objective. All groups had also used more than one method of gathering their information. They had all found it difficult to separate their findings from their own opinions on their subjects, and to draw conclusions from their findings. It is true that at least one group had misunderstood the nature of the task, and had used the opportunity to put forward their own views on a particular subject.

Following the presentations, there was a short discussion in which the whole class took part. A quick demonstration of gather-

ing quantitative data proved amusing – we asked students to raise their hand if they liked chocolate. All but one raised her hand, giving us our result. We concluded that the

*their research was mainly based on individual and personal opinions*

majority liked chocolate, to show how to link conclusions to results.

We wanted to know what they felt they had learned through doing the research, and what they thought the point of research was. In summary, students felt that they had learned about working together and had learned about their specific subject areas, rather than learning about research per se. Following the class discussion, some said they wanted to do more research.

*They all enjoyed being practical but found encountering problems along the way a real challenge. They all agreed that that they had learnt the importance of good organisation.*

Director of Teaching and Learning

## Results of the exercise

Not all the students had grasped the point of the project, and that was probably because:

- we had not briefed them properly
- the task was too big and unfamiliar
- they had not read the handout supplied carefully
- the project had to be completed in only one morning's work.

The Director of Teaching and Learning, who organises the day each year, was pleased that the students had learned from the experience.

*From reading the accounts of the other groups they were able to express what they had gained from the activity. There is always a spectrum of experiences.*

Director of Teaching and Learning

One group did not write a report, and preferred instead to give oral feedback. During discussion with the Director of Teaching and Learning, they were able to discuss points and demonstrate that they had learned from the experience.

## What did we learn as the facilitators?

As facilitators, we asked too much of the students in the time they had available.

Our first mistake was to let them choose their own research question. Discussion of what to research had obviously taken up valuable time. It would have been easier if we had allocated a question to each group.

It also would have been helpful if we had instructed the students exactly how to do their research, rather than encouraging them to choose their own research methods.

Again, time spent working out how to do the research meant less time for actually doing it.

We assumed too much knowledge of research in general for this age group. It would have been very useful to have a session with the whole class before they started their projects, especially to help them understand how and why research is used in society, and how to draw conclusions from the results of research. However, the purpose of the day is to set a task that is achievable on that day, so our handout should have dealt with these points more clearly.

We were delighted that the students had enjoyed the task and that some had felt inspired and excited about research. Their passion and enthusiasm for their subjects was clear, and we felt privileged to be part of the Thinking Outside the Box day. But if we did this again, we would make the brief tighter and clearer, setting specific research questions and methods.

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## Weblinks

*practical research for education*

[www.pre-online.co.uk](http://www.pre-online.co.uk)

Visit the journal's website for:

- the handout we gave to the students
- the template supplied for their reports
- students' reports on their projects.

Ask Kids

[www.askkids.com](http://www.askkids.com)

A version of the Ask website, designed for children.

Yahoo! Kids

<http://kids.yahoo.com>

A version of the Yahoo search engine, designed for children

## About the authors

Helen Crawley works at NFER and has recently gained a Diploma in Management Studies, which includes a research element.

Alison Lawson, editor of *pre*, gained her PhD in 2006. Her research interests are in vocational education, organisational behaviour, management and information technology.

## Contact details

[h.crawley@nfer.ac.uk](mailto:h.crawley@nfer.ac.uk)

[a.lawson@nfer.ac.uk](mailto:a.lawson@nfer.ac.uk)

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