

Meaningful Learning Experiences

Strategic Commitment	✓	Part of a series of exemplars and a regional programme
Curriculum Provision	✓	Focusing on a specific aspect of the GCSE specification
Employer Partnerships	✓	Involving a local, long-established SME employer
Reflective Young People		
Informed Career Choices	✓	Insights into the reality of work as a software programmer

Feedback from local software expert motivates GCSE students about classroom projects

Bramcote College, part of the White Hills Federation in Nottingham, had chosen six curriculum topics to create exemplar projects as part of a strategic plan to enrich subject learning in partnership with local employers. The brief for a GCSE Computing projects stated that, *'... we are covering algorithms and programming techniques. It's the theory, but we also have programming mini projects that I am doing at the same time'*.

Some of the students are competent software coders, but tend to quickly start programming, rather than considering client needs and preparing prototypes and plans. Teaching staff prepared two client scenarios – one involving an app to help school children at a neighbouring with phonics and the other to enable safer log-in for staff working at the local authority. Students were informed at the outset that their work would be seen by a programming expert, from whom they would also receive feedback.

Breeze is a small company that has been successfully creating bespoke software solutions for a wide range of clients around the country. In spite of difficulties within the school caused by staff changes and nervousness of the senior project manager from Breeze about speaking with a group of year 10 students, the final face-to-face encounter was rewarding for employer, students and teaching staff.

Benefits for the Students

- *'It felt a lot different. We usually show Miss our work and get her approval. But we got someone else's – someone who doesn't know us'*
- *'It wasn't like a worksheet. In our groups, we assigned people to do different stuff ... prototyping and researching the client ... It made it a bit more realistic'*
- *'There was a big difference in the work ethic within our teams'*
- *'There was a lot more than just writing the code. One of the main aspects was researching who we were making it for ... to appeal to the target audience'*
- We discovered that software programming is, *'... not as simple and straightforward as people think. It takes a lot of time and effort'*

Benefits for the School

- The project is one of a series involving a range of curriculum subjects that will support subsequent staff development activity
- Impact assessment included use of the D2N2 LEP’s skills framework and results revealed that ‘Cooperative’ was, by far, the skill most developed among the group of students
- *It was brilliant! Enjoyed talking to Scott thoroughly about it!* (Head of Computing)

Benefits for the Employer

- Breeze is well-established and successful – but has a small team of specialists. Providing input for the school therefore needed to make limited demand on their time
- *‘Whilst I found myself somewhat outside my comfort zone ... I found it very interesting, and in its way, quite rewarding and almost, dare I say, enjoyable. ... You definitely see that, for many students, this kind of activity could have a major influence on them’*



GCSE students were given a option of two programming projects. This required them to consider client needs before they started writing code. Their work was sent to a senior project manager who visited the group to provide feedback and share his practical experience.

My final evaluation

Overall I feel that our team worked extremely well considering we were many people down compared to the other team. Another major point was the pace our team worked at. We worked at incredible pace with minor disruption. I feel our chemistry was excellent as well as our quality and quantity of work. One unfortunate aspect was that we couldn't complete the pseudocode due to this lack of people we had and the confusion we felt over completing it. Even with these faults I personally feel our team did an excellent job of our design and ideas. Overall I felt like we had still completed

