

## Willy Wonka Goes Dutch

### Keith Good

*Senior Lecturer in charge of Primary Design Technology and overseas liaison, University of Greenwich*

How a group of Dutch primary teachers and lecturers spent their week doing Primary Design and Technology at the University of Greenwich

This project allowed me to combine two of my main areas of responsibility at the University of Greenwich, namely Design and Technology overseas liaison and Primary in-service training in DT. Liaison sometimes involves discussing our work with teachers and lecturers from other countries when they visit the Design and Technology Centre at Avery Hill Campus. The in-service work described in this article sprang from such a visit by Dutch lecturers from the PABO (primary teachers' college) at Tilburg in the Netherlands. Their interest in the UK approach to technology teaching and encouragement from superiors led to a trip to London for Tilburg teachers.

I made a preliminary visit to Tilburg with the headteacher of a Kent infants' school and we talked to the students and staff. This was also a chance to meet the practising teachers who would be coming to the University of Greenwich for a week of primary DT. In an attempt to explain the intricacies of programmes of study, attainment targets and so on, I used NCC videos, slides of work I had done with children in school and last but not least, Horatio, the stuffed hamster. I should explain that Horatio (my companion on many a trip) is not a real hamster. He is larger than life, made from fur fabric and partly stuffed with a 9v battery, buzzer, reed switch and capacitor. These parts combine to make him whine piteously when stroked with a concealed magnet. Another effect of the circuit is to excite security staff at the airports when I fly to and from the Netherlands. Horatio broke the ice as intended — the teachers gained some idea of what they were in for — and still none pulled out!

The week's work was based on Roald Dahl's story, *Charlie and the Chocolate Factory*. During my visit I had established that teachers already knew the story and they were asked to read it in English as part of their preparation for the trip. The familiar and 'fun' context of the story helped to alleviate any lurking 'technophobia'. The story was also chosen because it provides such a good vehicle for a wide range of technology. As the teachers had a good understanding of the context we were able to make a flying start to what was to be a varied and busy week.

The practical outcome was to be a 'new machine' for Willy Wonka's chocolate factory which allowed us to cover the construction, mechanisms and electrics which fitted in well with the Dutch notion of 'technics'.

After an introduction and welcome, it was time to get to work. Readings from the story and excerpts from the video were used to get people in the mood. Gradually the very polite and slightly reserved (suspicious?) group began to loosen up. There was a further introduction to National Curriculum Technology, this time illustrated by examples from the project in hand. A wide range of possible practical activities and outcomes were discussed such as developing and evaluating sweet recipes, making, packaging and marketing the sweets, designing chocolate moulds, and making dummy display chocolate bars and point of sale display stands. This was to show the variety possible — we didn't have time to do it all.

The teachers were not intended to transfer the project directly to their own classrooms but rather to recognise techniques and an approach that could be incorporated in their existing way of working. Technology is yet to become compulsory in Dutch primary schools, so using the subject as a means of furthering language, number and other basic skills was given some thought.

Teachers worked in groups of four. This proved to be about the right number: enough for good progress and mutual support but not so many that they got in each other's way. The familiar problem of 'who takes the work home?' did not arise. Keen though they became, none relished the prospect of trying to get a large, brightly coloured and possibly fragile contraption home by ferry and train. A video and lots of photographs were taken, though.

Let there be light!



## The moment of truth



Willy Wonka style 'sweet making' machines began to appear, reminiscent of Heath Robinson's fantastic contraptions. Soon teachers were standing on tables, kneeling on the floor, busily making accompanied by snatches of the Oompah Loompah's song. Excursions to London (including a theatre pub) helped group members to get to know each other and no doubt encouraged team spirit during practical sessions. A visit to the Cabaret Mechanical Theatre, Covent Garden provided a valuable stimulus (and is thoroughly recommended to all who delight in ingenious and amusing automata). Some visited the Design Centre and the Bethnal Green Museum of Childhood — and still managed to do some shopping. Teachers also spent the day in a school of the headteacher they had met in Tilburg and there was also a talk from a primary teacher adviser.

Construction kits played a useful part in this project, allowing the supporting framework of the machines to be set up quickly, although some did opt for the cardboard triangle or other methods. Some kits, Mini-Quadro for example, lent themselves to structures more than mechanisms; with others the reverse was true. Providing a variety of kits helped teachers to explore their relative merits. Combining kits with parts made from raw materials and salvaged parts gave greater flexibility than using kits alone and helped avoid too much dependency on them.

A good variety of machines were produced. I particularly liked the one with a slightly macabre touch that included Charlie's grandparents (made in fabric) turning on a kind of rotisserie — though there was a less than savoury suggestion that their waste products were being recycled into chocolate! The grand finale was when each group 'performed' with their machine for the benefit of the others. It has to be said that malfunctioning machines provided far more entertainment than those that worked first time. All in all, we thought Willy Wonka would have been pleased with our efforts. The week was judged a success and another group will be coming to the University of Greenwich this year.

## It will never fly...

