

Professional designers in primary schools: how successful are they at teaching children design skills?

Rosey Harding

Over the years there have been many projects involving designers and architects in schools, but they were mostly used as a resource when looking at the built environment. Here Rosey Harding (who worked as a PR/marketing consultant to designers and architects for 20 years before becoming a teacher) describes her research project into the transfer of skills.

Rosey Harding did a BEd. (Hons) Primary at University of Greenwich, specialising in Design & Technology and now teaches at Richard Cobden Primary School in Camden, North London.

The publication of the interim findings of the Design Council's report *Design Focus in Schools* (Spring, 1995) highlights an area of teaching that is of concern to me and, I suspect, many other teachers. This is the issue of how to teach children the skills, processes and attitudes inherent in design.

The National Curriculum says that children should be taught to 'generate ideas' and this is surely at the heart of design. But the process of generating ideas is a complex relationship between experience, analysis, synthesis and appraisal. For non-specialist teachers this can present many problems. I suspect that many class teachers expect children to conjure ideas out of thin air without reference to the above analysis, synthesis etc. When this proves difficult the children classify themselves as non-designers and are turned off the subject and the activity of design for ever.

The Design Council's report says:

Design, like any other intellectual activity, gives shape to ideas through their expression in cycles of continuous refinement. However, teachers need to support pupils in generating and developing ideas for this to happen. Very few teachers have received any training in these areas so it is not surprising that they lack the confidence to provide this support.

The process of design can be threatening to some teachers, particularly those who are themselves products of an education system which values knowledge, correct answers and neat work. Design uses knowledge as a basis for exploration in which there are no correct answers, only better solutions to problems and design work is often not conventionally neat which can make it difficult to explain to colleagues and parents.

In essence the problem is that some teachers have an attitude towards education which is incompatible with what we might call 'designerly thinking'. The question is how they can best be helped to deliver a curriculum which fosters design ability and awareness.

■ Designers working with children

There are textbooks which set out theories about how children learn to design. There are INSET sessions which give practical advice and teaching packs for use in the classroom. All of these have their uses. But what about using live, trained designers as a resource? On the basis that you learn best by doing, I have investigated the benefits of involving designers in a junior classroom to see what the children and I could learn from a professional designer.

The research project, for my BEd. (Hons) dissertation, involved two local architects. The project I set was to improve the school's rooftop playground. The architects each



worked with four mixed-ability children and as a sort of control (this study was too small to be statistically valid) I had another group of four. The architects and I met our groups for an hour and a half a week over a six-week period. I banned communication between the groups to ensure that each project developed independently but I acted as non-participant observer for both architects' groups.

From the first session it was clear that the approach of two architects was going to be very similar and quite different from a teacher's approach. Both started with a thorough analysis of the site then focused on the process of deconstruction, forcing the children to differentiate between things that could be changed, and physical features such as the sun's movement and the wind that could not. The children were asked to consider how the playground was used and to identify the problems in its current usage before discussing all the possible ways of solving these problems. The final designs, in both cases, were startling and innovative yet potentially possible. One group decided to build a raised platform to accommodate a football pitch which freed the existing playground for other games and quiet space. Inspired by photos of the work of Spanish architect Antonio Gaudi, their structure took on an organic form with which they were delighted. The other group felt the main problem was wet playtimes and wanted to devise a way of covering the playground. Their design was for a retractable

roofing system which involved complex discussions about materials, structures and forces.

My group felt the playground was too boring and saw the solution in terms of cosmetic changes. They wanted to build a climbing structure, paint more games and create a quiet corner and I did not know how to lead the discussion on to a level where more fundamental possibilities could be examined.

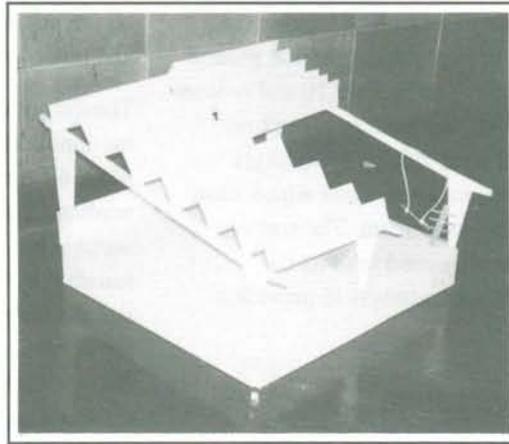
■ Teaching design thinking

Theorists have shown that the process of design involves an ability to mentally model something that as yet does not exist. The process that both architects went through seems to have put the children in a situation where this mental modelling could take place. By stripping away the constraints of the site and making it clear that virtually anything could happen, they freed up the children's thinking, enabling them to cognitively model new possibilities. The architects had the knowledge and the confidence to 'deconstruct' and 'rebuild' the playground whereas I, as the teacher was applying a cosmetic solution to a flawed structure.

■ Need for teaching skills

With small groups the architects' lack of teaching skills did not present too many problems and the children remained involved even if they were not engaged in a particular activity. Discipline would have broken down.





had the groups been larger, however. The use of technical language caused problems for one group. One architect, although aware of the need to explain technical terminology, discovered his everyday language was studded with jargon which hindered communication with the children. However, the children did pick up some technical words — ‘access’ and ‘span’, for example — and used them quite naturally in their final group presentations.

■ Teacher as learner

The exercise clearly illustrated the benefit of teaching a subject in which you are knowledgeable. The learning experience for the children had greater depth and was more intellectually stimulating. By watching the architects I learnt the importance of analysis and focusing on the problem rather than allowing the children to jump straight to design ideas. I noted their pleasure in the use of technical language and the care with which they built their scale models.

■ Designers in the classroom

I found my architects by writing to a national architect’s paper asking for a volunteer. I received an astonishing 15 offers of help from local architects. From conversations with other professional designers I believe there is a genuine desire on the part of many designers to put something back into an education system that has served them well but is now under strain. My experience is that if you ask for help for children you will normally get it.

To find a designer, look in the local Yellow Pages, try art/design/architecture departments at universities or colleges or contact the London head office of official bodies such as the Design Council, Chartered Society of Designers or Royal Institute of British Architects. When you have a volunteer, negotiate his or her input to the project and be prepared to brief them on basic teaching skills. As teachers know, keeping children involved and on task requires careful planning.

■ A valuable experience

For this project I worked with architects but I plan to invite graphic, product, fashion and other specialist designers into my classroom. I believe all will bring knowledge, skills and attitudes from which the children and I will learn. Meeting real designers and looking at their work is a real motivator for children and this type of exercise provides a powerful link with the outside world.

