12. DESIGNERLY THINKING IN THE FOUNDATION STAGE

INTRODUCTION

Whilst Design and Technology (D&T) was introduced into the primary curriculum (children aged 5–11 years) in England in 1990, there were no specific subjects in the first English Early Years curriculum for children aged 3–5 years (SCAA, 1996). Six areas of learning were identified and whilst D&T content could be identified in all areas, the focus for the subject was within Knowledge and Understanding of the World. As the curriculum has been updated the 6 areas remain (DfEE/QCA, 2000 and DfES, 2007) including Knowledge and Understanding of the World. Young children are to be given opportunities to explore materials, investigate products and how they work, build and construct with a wide range of materials, use a range of tools safely, and select tools and techniques that they need to shape, assemble and join materials in order to make their products. However there was little Continuing Professional Development (CPD) available to support the implementation of this aspect of the curriculum and certainly no national programme of CPD. From a small scale research study (Benson, 2001) for the Qualifications and Curriculum Authority (QCA) carried out in 49 Early Years settings, it was apparent that teachers lacked confidence and had little understanding of the nature of D&T. Activities focused on making, with little regard to designing. The teachers indicated that they were unsure as to how they could incorporate investigating and evaluating products into an Early Years curriculum – important activities to help children to look critically at the designed and made world around them. Teaching resources were available to support the development of knowledge and understanding of materials, mechanisms and making, but little to support designing including product evaluation – focusing children’s attention on the design of a product and developing their designerly thinking skills.

The concept of designerly thinking used by, for example Baynes (1994), linked imaginative play and designing skills and provided a useful starting point for further work on this aspect of the curriculum. Following on from the initial research (Benson, 2001) a major project was funded by the Department for Education and Skills (DfES) that focused on encouraging teachers to develop children’s designerly thinking skills in their own Foundation Stage settings (Benson, 2003). A key aspect of the project was to provide resources that could be used to show how to help the development of designerly thinking through exploring and evaluating a range of designed and made products - the Early Years Materials Kit (TTS, 2003).
Talking about and evaluating existing products, including disassembling and reassembling items, is often the important first step in a school project and is the basis of investigating, disassembling and evaluating activities (IDEAs) introduced later on in the primary school in the National Curriculum. However, when looking at the opportunities for the development of evaluative skills in younger children, there is an under representation of talking about the designed and made world in the Foundation Stage curriculum guidance for teachers (DfEE/QCA, 2000). This is in contrast to the French Early Years curriculum (Senesi, 1998) that specifically advocates the assembling and disassembling of designed and made products.

It was the DfES designerly thinking project and research findings from this that provided the inspiration and focus for research carried out by Treleven (2004) and led to the research outlined in this chapter. Previously Benson (2003) and Treleven (2004) had presented the children with a range of products, using questioning as a key tool in developing their designerly thinking skills. Now Treleven wanted to try a different approach and put each product into a context as she introduced them to the children. The following is the report of a small scale case study research project carried out by Treleven in a London Nursery.

THE RESEARCH PROJECT

In assessing the current experiences of the children to be involved in the project, I saw the potential to develop these by working in the Nursery setting with a collection of designed and made products taken from the Early Years Materials Kit (TTS, 2003). Thus, I developed a series of activities designed to promote the importance of talking and making decisions about the products, but in a different way to the previous studies (Benson, 2003; Treleven, 2004). The objects were presented within a context to the children and the children were then asked to solve a problem or find a solution. I felt that the children might be more able to engage with the task set in an authentic context.

The aims of the project were to support the findings of the original project (Benson, 2003) and to show potential benefits of using a designerly thinking approach in a Foundation Stage curriculum. The skills that develop when children are involved in product evaluation activities would be identified. The investigation would focus on whether when tasks are meaningful to the children, they are able to use designerly thinking skills to evaluate different designed and made products. In order to do this, the study began by drawing upon different aspects of children’s thinking, with particular reference to creativity and critical thinking.

LITERATURE REVIEW

The work of Piaget has had a huge impact on how we look at children’s thinking today (Tassoni & Hacker, 2000). Piaget was primarily interested in how children make sense of the world around them. His work on children’s developmental stages suggests that children are only capable of abstract thought from age twelve onwards. In the current study, according to Piaget, the children would be working within the