

Editorial

Peter Toft, writing as guest editor of the Spring issue of SDECT, highlighted a number of important points on the development of CDT in schools, particularly the need for 'a sound body of knowledge about the nature, teaching and development of CDT'. This issue attempts to build upon that observation by examining the role of Loughborough University's Department of Design and Technology in developing understanding in this area through work in design and technology education and design for professional practice.

The two key roles of any university department are research and teaching. In both respects there have been considerable developments at Loughborough in recent years. By focussing on these developments in this special edition of SDECT it is intended to offer a number of perspectives on thinking at Loughborough. In addition it will also provide models which will be of both direct and indirect value to those working at 'the chalkface' and in addition the advisory service and teacher training.

We lead with a short statement on the innovative DATER'88 National research conference by Smith. This conference has set new standards in design and technology education by encouraging not just academic research but also research and experimentation by the practicing teacher. In many respects this form of research has been looked down upon and rarely disseminated due to lack of experimenter confidence, limited media space and a certain lack of respect from the traditional education research periodicals. A central concept of the DATER conference was that this work is just as valuable as the large, prestige, research project. We should actively encourage an attitude of 'action research'. It is expected that in a follow up to DATER 88 the Foundations of some form of research and curriculum development clearing house may be established. In addition the proceedings of the DATER conferences will soon become a standard text for reference in design and technology.

Following the DATER statement we have three articles which illustrate staff research within the department. Firstly Denton contributes a paper from the DATER 88 conference on the concept of

Group Task Management. This has developed over the last three years based on field work with Bedfordshire and Croydon LEA's. It was first aired, in an early form, in an article in SDECT in 1986. Secondly Garner writes a provocative article on drawing as a design tool and argues that design education neglects and misunderstands this resource. This is an expansion on a poster presented at DATER 88 (see article by Smith for an explanation of posters). This is a particularly timely statement. Norman has contributed an important article on the growth area of information technology and design. The potential developments in this area will have a profound effect on design in professional practice and in schools.

We then move to three examples of research students' work in the department. All three are from seconded teachers working for MPhil degrees. Kilkenny was seconded from Clwyd to research, in a very practical manner, a programme for curriculum development in Design. The techniques generated will be of interest to all teachers and advisers. Monkhouse, who teaches at Chesterfield College of Technology and Arts, researched the development of a three dimensional computer modeller for art and design education. This has now reached the stage where software has been marketed. Finally Webb looks at the question of assessment in the Foundation years of design education and has produced a piece of work which is particularly sensitive to the question of the teacher-time necessary for this important task.

The second part of the issue then turns to look at particular curriculum innovation at Loughborough which may have significant interest and value to teachers in schools. Whilst it should be appreciated that these articles refer specifically to a degree in Design and Technology rather than practice in schools, many useful principles may be extracted by the teacher in respect of their own position.

Firstly a brief statement places the following articles in the perspective of the course structure as a whole. This is done with a short description of the three year degree BA (hons) in Design and Technology, which, when followed by a PGCE, now appears to be the favoured route into teaching. We look

firstly at the development of 'Core Design' by Atkinson, Denton and Garner, a considerable amount of thinking and development has gone into this 'new foundation' in design. Secondly Norman and Riley look at the question of technological capability. Norman, Bullock and Hall describe the experiences of students in the first two years of the course in relation to materials and their processing. Hall then goes on to look at product design and analysis as approached in years 2 and 3. Next Mockford presents an article on the interesting and important topic of computer systems and software for modelling products, illustrating it with highly relevant examples of current projects for industry.

In conclusion it is hoped that this special edition will both stimulate thought and provide useful models to those working in schools, advisory and teacher training. We believe that Loughborough has a great deal to offer these areas in both research and curriculum development and are particularly grateful to John Eggleston for the opportunity to present these thoughts.

Howard Denton