

# CDT: is it 'Hands on' or 'Hands off'?

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The three subject areas of C.D.T. are at the present moment being taught as three separate entities but together, of course, represent the subject of C.D.T., so in the light of the National Curriculum the notion of C.D.T. as three separate areas seem to be a thing of the past and that it is only the examination system that perpetuates this idea.

With designing-and-making as a project based activity involving other curriculum areas it could be said that the C.D.T. department as we know it to be today may not exist to teach Realisation, Communication, or Technology, but it will be there as an amalgam to give the pupils the capability and confidence to design, make, and evaluate products and systems.

Since the advent of G.C.S.E., T.V.E., and other curriculum developments there has been a move towards cross-curricular, pupil-centred teaching using the same approach as that used by C.D.T. departments, namely that process of designing, making, and evaluating, in a technological environment, which now means that other subject areas are looking towards C.D.T. to fulfil this requirement, including Home Economics, Textiles, Art and Design, I.T., and Computer Studies.

Confusion often arises in a school where the title C.D.T. is used in an incorrect context. Very often it is the case where a C.D.T. teacher is expected to be able to teach all three subject areas, just because he/she is a C.D.T. teacher, the 'powers that be' not realising the specialisms involved. The National Curriculum document supposes that we are all now 'Design and Technology' teachers and that can mean anything from 'D&T-Textiles' and 'D&T-Business Studies' to 'D&T-Home Economics' and 'D&T-C.D.T.-Realisation'! To add to the confusion of other subjects being added to the list will we now be expected to teach all these areas just because we are D&T teachers?

I don't think that we should feel threatened about our own subject areas for they will undoubtedly remain, only

the approach is changing. This could mean, though, quite another upheaval for those teachers traditionally trained in Cookery, Metalwork, Needlework, Technical Drawing, or Woodwork, or even Art and Design. Despite INSET provisions through GRIST, secondments, and other retraining courses, there are still many of these traditionally training teachers who feel that despite their own condensation of skills to CDT-Realisation or Communication in the light of curriculum changes there has been a lack of thought for the needs of *all* the pupils. All the so-called 'Craft' subjects have disappeared and so too have many of the teachers who had developed many practical skills over many years. Too often today we hear from industrial employers that too many pupils are lacking in the basic skills of practical work; and despite the assessment objectives in the D&T Report these skills need to be refined and developed to a high degree before employers are satisfied that basic practical skills and knowledge in a specific subject area are acceptable to them. Some teachers have already commented on the fact there will be too much Crayoning, Drawing, and Tracing in D&T!

The needs of the pupils and their future aspirations after leaving school are of paramount importance and are central to what teaching is about today. So when the National Curriculum is considered those needs must be taken into account even if it means re-introducing Woodwork, Cookery, Metalwork, Building Studies, or Motor Vehicle Maintenance, alongside, 'Design and Technology'. Examinations in these, and other, areas could well be phased out in years to come as the Records of Achievement gradually take over from the constraints of an examination system which confines school work only to examinations on offer. I wonder how many of the above subjects have already appeared on TVE or B-Tech schemes?

As pupils go out into Industry on their Work Experience they often find that school work is not related in any way to

the jobs they do, or would like to do when they have left school and then upon their return they find school work rather boring as a result; but they are to be continually told by us that they must have this exam pass, or that exam pass, regardless of the chosen area of work or further study. Perhaps the National Curriculum initiatives will help to rectify this, perhaps forcing the teacher him/her self into their own Work Experience fortnights!

From my own experience recently on a 'Teachers into Industry' scheme it became obvious to my colleagues and I that not only does industry require Technologists, Technicians, and Designers, but Lathe Operators, Millers, Turners, Shopfitters, Metalworkers, Draughtsmen, and many other operatives whose employments are not necessarily design-orientated or computerised. Our information was that Industry is appalled at the decline in these basic skills involving wood and metal, and that many could not read a simple working drawing. Not all industries require problem-solving designers; and whilst problem-solving in itself is a good exercise most companies like to train operatives to their own way of doing things. They still require skilled operatives who can do as they are told and do what is wanted on the shop floor. They still require pupils who are good at 'Craft'.

Is it a fault of the system that many of these pupils are missing out on practical courses, especially when many of them cannot cope with the rather abstract art of problem-solving and designing or who have no interest in doing so? Perhaps the TVE initiatives, related to Work Experience, will also endeavour to correct this situation. Perhaps the 'CDT' department can organise some 'craft' orientated courses without the problem-solving approach, continuing with their Industry link-ups.

There is an argument that a Designer or an operative of a computerised machine cannot fulfil his or her role efficiently without that practical 'hands on' experience. It is akin to someone trying to



use a typewriter or a word processor without a knowledge of spellings or grammar. We must not, as educators fall into that trap.

Despite these curriculum processes there are still some heads of CDT departments who are defending their empires, without the qualified staff, without sufficient funds, insular in their outlook within the school, the local community and local industry. They intend to keep CDT out of any other curriculum area and see TVE and the National Curriculum as a threat to that empire. They often close ranks when under attack from a request to justify themselves.

The lack of a coherent strategy towards CDT, Technology, or to D&T across the curriculum often leads to a Staff who are bewildered and confused, not only in the CDT department but within the rest of the school. Under these conditions the CDT department would soon become redundant as it becomes taken over by other curriculum areas. The new D&T report should rectify this situation as CDT is firmly on the map!

It is a challenge, therefore, for the heads of CDT departments to take up the initiative and to liaise with other departments to develop courses according to the needs of the pupils within that school and not confining them to the constraints of a pre-set timetable or staffing. In time they could become D&T co-ordinators within the school instead of a head of CDT department, keeping meticulous records in a central recording system monitoring the input of D&T across the curriculum and teaching 'Craft' or CDT.

So where does this leave CDT-Technology as an examination subject? In the light of the National Curriculum report does it make it redundant? With Technology being monitored across the curriculum in a problem-solving, design, make, and evaluate, environment involving ingenuity, craftsmanship, and creative engineering, there seems little room for it as an examination subject. Where there is a human need to be satisfied or a practical problem to be solved there is

Technology! So, could this area not already be covered by D&T-CDT-Realisation or D&T-CDT-Communication or D&T-Home Economics, or even the Records of Achievement?

We are now moving towards a cross-curricular approach to D&T involving many other subject areas not before considered to be part of D&T: B-Tech courses, City and Guilds, TVE, CPVE, R of A, and the GCSE are all vehicles for implementing the D&T proposals in order to enhance and compliment the needs of the pupils as they move through Work Experience and on into life after school.

The final outcome will be a 'Hands on' experience in a practical, artistic, and technological environment, instead of a 'hands off' my department syndrome. This is the only way, perhaps, that 'CDT' or 'Craft' will survive in a world where changes can easily overtake us.

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#### AVON DESIGN AND TECHNOLOGY

#### TEACHERS SUPPORT MATERIAL

The Teachers Support Material for Modules 1, 2, 4 and 5 has been written and is available in printed form. It covers suggested methods of delivery,

'Having established the need for an approach to designing and that solutions cannot be plucked out of the air and always provide satisfactory results, it is now suggested that students are given a background to establish that design is carried out as the result of a **need**'.<sup>3</sup>

expands upon techniques and examination requirements. There is a large section devoted to resources and throughout the text there are references to sources of information, books, videos, teaching packs and materials.

Some of the Teachers Support Material for the Option Modules has been written but is not yet in print form.

#### References

1. HMI Series Curriculum Matters 9. Craft Design & Technology from 5 to 16. HMSO. 1987.

2. The Avon Design & Technology Writing Team. Avon Design & Technology Syllabus and Course Details. Published by Avon Local Education Authority, 1988.
3. Williams, B. Avon Design & Technology: Teachers Support Material. Published by Avon Local Education Authority, 1988.

#### DETAILS

Further details of the course, Syllabus book and Teachers Support Material are available from Avon County TVEI Centre, Gages Road, Kingswood, Bristol BS15 2TE. Tel: 0272 352174.