

Work, CDT and the Low Achievers Project in Coventry

Introduction

In september 1985 the author was seconded for a period of one term by Coventry LEA to 'The Edgwick Centre' in order to undertake specific research into modular curriculum development in conjunction with the 'DES Project'. The area chosen for study was Engineering and on completion of his research the author intends to produce a series of interlocking modular units which will, hopefully, be made available by the LEA to interested parties.

Before joining the 'Edgwick Team' the author had only the barest information about the initiative (mainly through his work as a teacher of CDT in one of Coventry's large comprehensive schools). At the school some of his students were classified as low attainers with, in some cases, the added complication of being in care because of anti-social behaviour. The author was interested, therefore, to see how students with similar backgrounds fared in the DES Project programme. Did it offer an experience of success; something the students could succeed in which they felt was worthwhile and did not make them feel stigmatized as a group of 'slow learners'; or was the experience a backward step, educationally, and as such detrimental to the further development of the students. The answer to this question formed the basis of his research and the future composition of the learning package.

The Project in Coventry

The DES model for LAP (Low Achievers Project) follows that of the MSC's TVEI programme. Broad curriculum and cost guidelines are laid down for the LEAs, but within that framework they are expected to plan and negotiate their own distinctive programme reflecting local needs. Coventry LEA's own style of operation is similar. It has the reputation for laying down clear frameworks within which schools can operate.

The DES Project programme in Coventry reflects this strategy. All secondary and special schools in the authority were asked to forward numbers of students who would benefit from this experience and to devise a school curriculum for them which would maximise this experience.

The practical element of the project was based at the Edgwick Centre. This was already established and it was decided by the authority to make maximum use of this resource. The centre still retains an industrial atmosphere with individual enclosed work areas being housed within the vast, original Alfred Herbert factory building.

However, although a practically based experience remains higher on the list of course requirements the overall aims are much wider. Promoting the quality of life for the students after leaving school, whether in employment or not, remains fundamental;

'To enable the students to develop as mature individuals, capable of dealing with the problems which confront them, both as groups and as individuals. Among these problems for many



students will be periods of time, often prolonged, when paid employment is not available' (Sanday, 1983, p.1).

Project Organisation

The Project team consists of Head of Centre; Head of Project, six Project teachers, (based on the Edgwick site but with responsibility for liaising with particular schools, certain craftspeople and having specific control over certain areas of the on-site element of the curriculum i.e. maths or craft, in order to further its development); liaison teachers (those teachers taking responsibility for liaison with the Edgwick team from each school), and thirty craftspeople who work with small groups of the students in the work areas.

During the first year, students choose four from a wide range of occupational experiences:

- Community Care
- Hair Care
- Home Decorating
- Electrical/Electronics
- Fashion/Retail
- Brickwork
- Office Technology
- Motor Cycle Maintenance
- Car Maintenance
- Engineering
- Multi-skills
- Home Maintenance
- Food Preparation and Service
- Craft and Design

Each of these occupies one day a week for a period of eight or nine weeks. The four courses provide the students with experience of different kinds of work and introduces them to a wide range of skills.

In the second year, students undertake two longer courses, each of which occupies one day a week for fifteen weeks. These courses involve a degree of specialisation in the chosen area and, further, aim to integrate and build on skills acquired in the first year giving closer attention to quality, accuracy, safe working practices, and the successful completion of tasks.

- Constructional Skills
- Materials and Design
- Food Service
- Community Service
- Vehicle Construction Skills
- Office and Communication
- Craft, Design and Hair Studio

During the whole project, the personal and social development of the student is of great importance. The 'Student Record' is built up over the two years in ways which encourage student participation and promote their sense of responsibility for their own learning. Assessment, therefore, is 'student centred' and takes the form of a profile. This involves a daily assessment where student and craftspeople assess the day's work according to attitudes and skills learnt and then a longer, more involved session, where areas of difficulty are discussed and strategies to overcome them evolved. This



'negotiated' profile can also involve consultation with liaison teachers from school and Edgwick staff. Where there are particular problems of welfare or disruptive behaviour counselling is offered, again involving staff from the school or the Edgwick Centre and/or parents.

Every school sends its project pupils to The Edgwick Centre on a particular day each week and is asked to offer a distinctive curriculum programme on the other four days. Boys and girls from comprehensive and special schools are fully integrated in whichever workshop option they choose. The schools, with this system in mind, devise their own curriculum to suit the needs of their own students. Schools were advised by the LEA to base their programme around the CGLI 365 (City & Guilds of London Institute) course, an established and flexible curriculum framework of pre-vocational education, which had originally been designed for 16+ youngsters, but which is now widely used in schools for the 14-16 age group.

The Edgwick team assume that this in-school curriculum includes such core subjects as English and Communication Skills, Mathematics, British Industry and Commerce, Social and Environmental Studies, Technology and Science and Personal Development which includes ATW (Active Tutorial Work) and the maintenance of a personal record of achievement (P. Watts, Head of the DESP at Edgwick, September 1985).

The response varies from school to school. Some opting for a largely separate curriculum within their own schools designed to integrate with the Edgwick

experience. In others, however, the Edgwick students remain integrated into the normal school curriculum.

The response in terms of numbers and composition of the students is also varied. The balance between boys and girls was heavily weighted in favour of boys, with: 'one school sending no girls at all' (DES Project Teacher, September 1985). One large comprehensive school decided after some discussion to send two students, while another sent seventy two, (there were 814 students altogether in the first year of the initiative). Beginning in September 1983, the LEA envisaged that the project would run for two years, but it has since been extended for a further two, in response to wide ranging support from its feeder schools.

The report that follows is based upon a series of interviews with teachers, students, craftspersons and employees.

The Teachers View

Most importantly almost all teachers interviewed agreed that a course of this nature fills a genuine need confronting the problems of disillusioned youngsters who feel that school has nothing to offer them in the final two years.

Further, agreement was unanimous that the main difference from 'traditional mainstream schooling' is to be found in the content, pedagogy and atmosphere created by the new curriculum. The teachers (and the students) thought that the atmosphere on the course was distinctly different from that back in the mainstream school. Phrases



most frequently used included: 'more relaxed, more variety and more active', These differences being given a positive evaluation by both staff (and students). Many teachers felt that the course improved the quality of the lower grade of student, with one senior teacher implying: 'we now upgrade most of our lowest grade students to a healthy self-respect,' while another argued that: '. . . the children who did the course have almost certainly obtained more out of it than they would have if they had followed the traditional path towards CSE'.

One reservation, however, that was expressed strongly by all the teachers interviewed was should the LEA be putting on vocational or even pre-vocational courses if jobs are extremely difficult to find? This reservation is perhaps more serious than at first seems the case. Although the course may be defended in terms of acquisition of a general adult status, the students overwhelming reaction is that they *are* acquiring job skills!

A further reservation teachers had was much more fundamental, — this concerned the problem of 'labelling' students as 'low attainers', at its most serious this raises questions about the whole future of the comprehensive ideal.

The Students View

Initially the author attempted to interview present students individually at Edgwick but found the dialogue very stunted entailing nothing more than a question and answer session. The students were very willing to answer the questions posed, but it was

difficult to get more than one or two word answers, and hence develop a dialogue for example:

Q. How do you get on with people from the different schools?

A. Alright.

Q. Do you enjoy working in the practical areas?

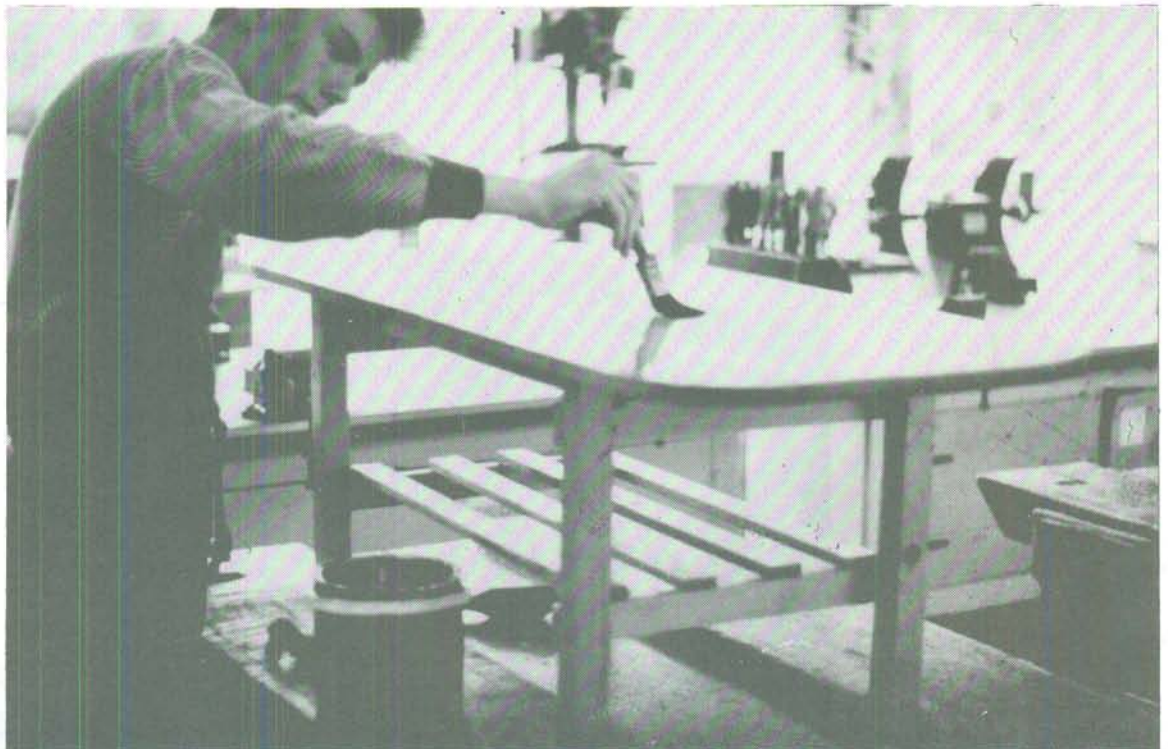
A. Yes.

Q. Have there been any problems?

A. No, not really.

The author decided, therefore, to create a more informal atmosphere by holding group sessions. This proved much more successful and alleviated many of the tensions previously noted, while still ensuring that everybody had an equal chance to join in. Students were able to talk freely about the scheme finding themselves more relaxed and at ease in each others company.

The key element of the course for all the DESP associated students interviewed was the practical work at Edgwick. All were agreed that not only was it the single most important element of the programme for them, but that it had been the one overwhelming factor which had influenced their decision to enter the project. This enthusiasm can perhaps be understood as a desire to be out of school and in a situation 'free' (at least for the present), from failure, a situation which, for many, is all too often a daily reality. This point was vividly and frequently made by students using such words as: 'a day off school', or 'breaking the daily grind' (reference to academia), and 'I'm here because I was bored with school'.



The experience of variety is an important one for these students. Many of them confessed that they got bored easily and, therefore, needed continual stimulation. Edgwick seems relatively successful in holding their attention by providing a stimulating environment. But, is this only in the short term and/or until they (the students) experience failure?

Two things stand out for the students as being major contributory factors to the positive atmosphere generated at Edgwick:

- (i) Teachers are seen to be more relaxed and informal. This perceived different attitude is described in many ways, the most common being: 'more helpful', and hence more 'approachable'.
- (ii) The emphasis on 'product centred' practical work is seen as being related to the outside world. Hence students see themselves getting a head start in the 'jobs race'. Rightly or wrongly, this attitude prevails and this feature is invariably described as 'getting real experience' or 'learning useful skills' — useful, that is, in terms of securing employment!

The latter point may be given more credibility by an observation common to all DESP students, that is the size of the group. This is dramatically smaller at an average of 17:1 (often considerably smaller), than the average of 30:1 encountered in school.

Moreover, when the students were asked about their parents' reaction to the course the general opinion was that the course would help them to obtain employment. Even though one DESP student implied: '. . . with so many unemployed at the moment it would be hard to get jobs anyway'. This sentiment was echoed by four 'ex' students who had

found it 'incredibly difficult' to obtain a YTS placement which gave them a continuity of experience with Edgwick.

All ten of the present DESP students in the author's sample reacted positively to the course. However, its 'radical' nature puzzled them in many instances, for example when interviewing this group the author asked for a complete explanation of the project as interpreted by them (the students). Interestingly they felt the need to translate terms like 'communication skills' explaining that it was really just English in disguise. It may be deduced, therefore, that many of these students still have a very traditional view of the curriculum and its teaching, perhaps this can be explained because they have only been exposed to the one approach — the didactic model. This may, perhaps, explain why six present DESP students expressed a desire to do 'proper lessons'. On the other hand, all the non-DESP students interviewed said that they wished they could partake in a similar experience themselves. This was given further support by the fact that even though at first, some people had said that those on the course were 'not clever', these same critics were, in the words of one non-DESP student, '. . . hanging around the office wanting to be on it themselves'. This was partly due to the 'perceived freedom of the DESP students as they went about the in-school element of the course, (which included many trips and outings), but also because it was genuinely felt that the group was 'getting on'.



Without exception, students both on and off the course regard the DESP in terms of future career prospects. It was interesting, therefore, to compare the evaluation given by participating, and non-participating students who are taking the more traditional route. Both groups can see the advantage in the others position, with project pupils realising that their advantage lies in the practical experiences encountered at Edgwick. Despite this they firmly believe that at the end of the day prospective employers will only be interested in 'proper qualifications'. Their peers, who are taking these qualifications seem, however, to be far less confident, worrying about the value of the qualifications, particularly CSE. They take the view that experience has become a far more important factor with employers.

The Craftpersons view

Overall the view taken of the course and its students by the craftspeople was quite different from that of the teachers, but very close to the one perceived by the students. This view was clearly expressed by one craftsman as he explained the scheme and his own position in it, to the author. A skilled and experienced bricklayer himself, he had been involved previously in training apprentices and so had some experience of, and interest in, working with young people. He wanted to give the students, not only experience of brickwork, but a pride in the job. It was his opinion that most of the students he worked with would make perfectly good skilled workers given the opportunity. He and they, were

proud of the work they had done which, when the author was in his section, comprised of an intricate spiral chimney stack and a curved, decorative door entrance. Rather than have the students dismantle this work at the end of the session, which was the usual practice, they decided to leave it for a few days for others to see. There was respect on both sides, but there was also frustration at not being able to do something 'real'. As the craftsman implied: 'using real materials is one thing but it is no substitute for building a structure to be used'.

In some groups the craftspeople raised problems associated with the wide range of abilities among the students. Although the scheme was designed for low achievers it actually has students with a wide spread of abilities. Poor behaviour, however, was considered to be the greatest problem which craftspeople had to cope with, although this was not considered to be widespread. There was a common feeling that some groups, which also were often the largest, were more difficult than others. Where problems did occur the craftsman could ask for support from the teachers at the centre. In extreme cases a student could be withdrawn from the group for counselling, placed in a different section or ultimately excluded from the site.

Mixing of the students from different comprehensive schools with youngsters from special schools was generally thought to work, provided the group was small enough for the craftsman to attend to everyone. In some options girls were working in areas they had never worked in before, for example, woodwork. The craftsman here felt



that the girls had no real difficulties in doing the work provided he had time to show them properly.

All the students addressed the craftspeople by their Christian names and vice versa in an attempt to move from the traditional authoritarian relationships found in some schools. The craftspeople and students expressed a preference for this relationship. In some workshops there had to be strict 'health and safety' rules i.e. welding, but even here the atmosphere was usually relaxed. Interestingly, however, students who did not get on with their craftsperson would, perhaps ominously, refer to them as 'being just like teachers'. The irony is that much of the in-service training (INSET) offered to craftspeople is designed to make them, 'more like teachers', and the fact that many craftspeople (including the ones the author interviewed) are studying for an F.E. teacher's certificate, adds credence to this observation. The author is sure, however, that much of this INSET work is necessary, particularly with instructional skills, and even more so with regard to pastoral skills. But it does seem such a pity to him that the very thing that makes this experience 'different' for the youngsters may be fast disappearing.

The Employers View

With one exception, the employers interviewed had only a very vague knowledge of the DESP. The general comment was summed up by one employer who said: '... there are too many schemes around at the moment... I can not keep track with them, they change so often'. Even the one employer who had heard of the Project did not realise that it was aimed at the lower 40% of children in school. Moreover, none of the employers interviewed realised that they had youngsters working for them that had received a different educational diet during their final two years of compulsory schooling.

Process of selection

The application forms sent out by four of the firms were very formal. This situation was partly explained by one employer, who receives '... thousands of applications each year from youngsters who want YTS courses, and only a few hundred can be chosen'. This was a universal problem, too many applicants for too few jobs, or places on YTS schemes. The criteria for selection, therefore, is perhaps predictable — examination success. This situation was confused for the author, however, when one employer advocated, on the one hand, that little attention is paid to the students previous school based experiences/courses, yet on the other hand, stressed the importance of examination results.

On the four application forms the author was shown (that had been completed by DESP youngsters) it was not obvious at all that they had attended a 'special course', but rather they had 'failed' the traditional system by obtaining a limited selection of examination results, (in two instances none at all). The employers seemed very surprised

when the author pointed out to them that very probably the students were not entered for certain examinations because of the structure of the DESP, therefore, the 'poor' examination showing was not entirely the students fault.

The problems illustrated in the application form could, in the author's opinion, be attributed to two factors:

- (i) The format of the application form.
- (ii) The inability of the student to insert in the 'examination taken' column the necessary DESP information, for example, a brief description of the course and its modules.

Moreover, there was no reference on any of the forms nor any available free space for the student to impart his/her knowledge on the 'social' skills' component of the DESP: an element which is seen by the administration of the course as fundamental. Hence this information is not recorded. Prospective employers, therefore, have little, if any evidence of this area of the youngsters development.

Nevertheless, skills other than those deemed to be 'academic' are seen as important by employers. The most common 'skill' to be mentioned (by all six employers), was attitude — mainly towards application to, and having a 'pride' in, ones work. Other abilities mentioned included: the ability to think for oneself; to be adaptable; trustworthy; good mannered; a good time-keeper and tidiness.

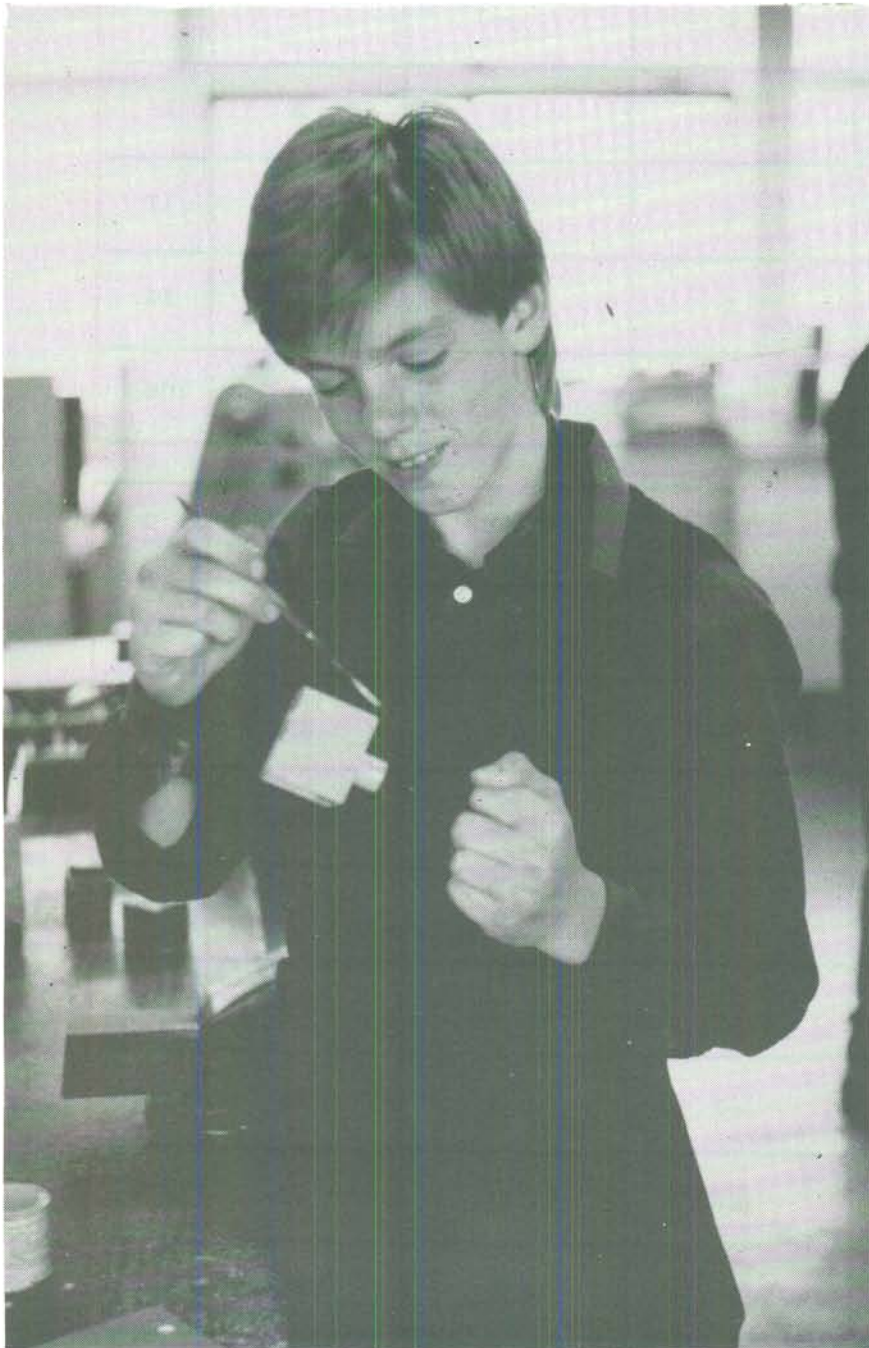
Overall, the author feels that the results show a lack of consensus amongst the 'interested parties' as to the 'aims and objectives' of the DESP. This indicates to him a confusion amongst all concerned. Confusion, in terms of employers besieged with numerous initiatives which they do not fully understand. Confusion, with craftspeople who, although willing to 'share their skills', are not teachers and in many cases lack the educational theory to enable them to impart their skills successfully. Confusion, for teachers who face any number of differing initiatives: OCEA, TVEI, CPVE, CDT, DESP and now the GCSE, many of which do not inter-relate, i.e. DESP and CDT. Confusion, for the students who when told by CDT teachers, on the one hand, that employers require thinking, adaptable people who can combine a 'problem solving mentality' with high quality practical work, — a definition which was confirmed by the employers interviewed. While many government inspired initiatives, on the other hand, have as their central theme a 'product' ideology which offers very little in the way of practical problem solving — certainly this applies to the DESP.

A case for vocationalism?

While advocating a more clearly differentiated curriculum, the DES has also made a number of pronouncements concerning the vocational nature of that curriculum suggesting that all students should have an element of vocational experience but as many as 40% (the lower 40%) should have a greater element of vocational training in their

curriculum than the rest. One justification for this idea is the suggestion that such students would improve their prospects of employment in this way. As the author suggests earlier in this paper both Edgwick students and their parents agree with this supposition and see the DESP as being important in this respect.

Will such students really have enhanced job prospects? Judging from the responses of the employers interviewed this does not seem to be the case. The sad fact is that most school leavers do



not get 'real' jobs. Only 13% of sixteen year olds went into paid employment in Coventry in 1985. Most of those who failed to get a job will probably attend some kind of vocational preparatory course on a two year YTS scheme. The destinations of a group of 5th year students from one Coventry comprehensive illustrate this trend. Interestingly, these figures also compare the destinations of the DESP students with their contemporaries, who followed the traditional curriculum, at the school, (Figure 1).

These figures clearly show that DESP students fare little better, in fact marginally worse (11% as opposed to 15%), than their 'traditional route' peers, in terms of obtaining 'real work'.

Three other observations are, in the author's opinion, equally important:

(i) The vast majority of DESP students (61%), as compared to (39%) of those following a traditional route, go on to join a YTS scheme, therefore, participating in a further two years of vocational preparation.

(ii) (17%) of DESP students become unemployed, as against (6%) of other 5th year leavers. This reaffirms the view taken by non-DESP students and employers that examination qualifications are still the most recognised route to employment.

(iii) No DESP students decided to pursue their studies into the 6th form or F.E. compared to (36%) of their peers. The author suggests three possible reasons for this:

a) DESP students 'know their place in society', and that is *not* to continue with education.

b) DESP students have simply had enough of school, an establishment where they are often branded as 'failures' and, therefore, a situation which offers them little stimulation and/or gratification.

c) DESP students have enjoyed their vocational experience so much that they want to go out and seek the 'real life' situation they have tasted at Edgwick; even though they themselves, in some instances, realise that jobs are at a premium. This, perhaps, begs the question — are we giving DESP students a false outlook on life and, therefore, a distorted view of the world of work.

One can not make generalisations from these figures being taken from a single school — even allowing for the fact that the careers officer at the school implied that they were 'pretty constant' throughout the city. However, it does seem to the author, that four years of vocational preparation would begin to raise serious questions about the value and effectiveness of the education/training involved.

Education or Training — Who Decides?

The overwhelming strength of Edgwick is that it is good at skill training. There are proud boasts from craftspeople who see their skills continually rewarded by a group of students who have been branded as 'failures', for whatever reason, in their feeder schools. Students too, speak with evident

Figure 1:
Destinations of 5th
Year DESP students
compared with
'Traditional'
Curriculum' students

DESP

CATEGORY	MALES	FEMALES	TOTAL	%
6TH FORM	-	-	-	-
F.E.	-	-	-	-
Y.T.S.	6	5	11	61
LEFT DISTRICT	-	-	-	-
NOT AVAILABLE	1	1	2	11
UNEMPLOYED	1	2	3	17
FOUND WORK	2	-	2	11
TOTAL	10	8	18	100

TRADITIONAL CURRICULUM

CATEGORY	MALES	FEMALES	TOTAL	%
6TH FORM	26	42	68	27
F.E.	2	21	23	9
Y.T.S.	59	41	100	39
LEFT DISTRICT	2	6	8	3
NOT AVAILABLE	-	3	3	1
UNEMPLOYED	7	8	15	6
FOUND WORK	28	11	39	15
TOTAL	124	132	256	100

pride about their exploits and will gleefully show you the fruits of their labour. Nobody, least of all the author, doubts the use of these skills, even though in some cases they might be termed 'redundant' if used as a 'taster' for industrial experience. However, in his opinion, the major problem that the craftspeople have to surmount is the realisation and belief that there is much more to the Edgwick experience than skill training and as such they should also be endowed with the more complex task of 'developing' young people.

In an institution which fosters the development of vocational skills, it is perhaps understandable that — particularly in a time of high unemployment — its clients strongly seize upon this element of the course. Students regularly talk of 'acquiring a trade' and 'receiving industrial training', or some equivalent phrase. Whilst, the author is sure, that it is important to boost the confidence of young people it is also important to give them a true sense of perspective — incredulous as it may seem many youngsters do sincerely believe that they become competent engineers after only a few short weeks at Edgwick.

Further, many students see Edgwick as part of the process of career choice. Hence, as students try out various work areas to see how they 'feel', and in a situation which they see as work-related training, then perhaps inevitably they are going to interpret such an experience in vocational terms. If this is the case then, in the author's view, it has two implications:

- (i) Much thought needs to go into the skill areas provided, variety being crucial. Certainly the experiences currently on offer can, perhaps, best be described as 'low technology'.
- (ii) The students need to be carefully counselled about their choice of skill area.

Many students (and for that matter teachers) describe Edgwick as being like a factory. The fact is of course that Edgwick *is* a factory, but, although it is like many factories it does not look or create the type of industrial atmosphere that is prevalent in any factory that has been built within the last two decades. This might seem like an insignificant point, but with the emphasis on realism, and the project's claim to be about the development of 'modern skills and practices' and, moreover, career choice, it might be very significant.

One puzzling question that concerned the author throughout his research was where did the DESP fit into the pattern of educational provision for young people in Coventry? While many teachers seemed unsure about the relationship between the course and other initiatives, for example, YTS or CPVE; the students were in little doubt that they would: 'end on on YTS'. However, none of the students interviewed were enthusiastic about this progression, even though as (Figure 1) suggests they seemed to be quite correct in their speculation.

Curriculum structure

The extent to which the curriculum in the schools links to the students experience at Edgwick was a topic of importance that surfaced in all the author's interviews with teachers. There was agreement that the work ought to be integrated, but what form this integration should take and whether the schools were doing it were causes for continual disagreements.

What is meant by integration? This appeared to take two forms:

- (i) Stresses the importance of integrating the Edgwick experience with the rest of the school curriculum by 'allowing' the students to see that the Edgwick experience is directly relevant to the school work, for example, the practical application of numeracy. This model does, however, in the author's view, have two main difficulties.
 - a) It assumes that the craftspeople at Edgwick know and understand what is happening in the school and vice versa.
 - b) It assumes that craftspeople and teachers alike understand the need for, and the practice of, 'allowing' the students to see and understand the connection between the two areas.

In the author's opinion, in order for teachers and craftspeople to get together and understand each others function, they should jointly produce clear work programmes. By and large only the craftspeople have made any progress in this area. Secondly, by developing the liaison teachers role it may be possible to bring Edgwick and the school very much closer together.

- (ii) The second method focusses not on integration at the level of the student. However, the success of this method depends upon three factors:
 - a) An overall plan of the likely needs of the students.
 - b) A willingness to construct individualised work programmes.
 - c) Monitoring of each students' progress on a regular basis.

The initial discussion document forwarded by the Senior Adviser emphasised the practical approach of the curriculum and suggested a structure including: English/communication skills, technical and business mathematics, British industry and commerce, social and environmental studies, technology and science, pastoral and career work, physical education and games and the expressive arts; in addition to occupational experience.

However, the main follow-up in schools has undoubtedly been to focus on students' personal and social development and common factors in learning through occupational experiences. Thus there has been a move to consider curricular links less in terms of content than developing attitudes to enable students to cope more readily with the school experience.

The uncertain future of the DESP and the present low morale in schools during this period of teacher unrest adds to the difficulty of curriculum

planning. It remains to be seen therefore whether it might be possible to work towards an overlapping in these curricular areas, for example, in modular courses through which it might be possible to progress at different levels.

Some wider implications for CDT and education generally

We live in an age characterised by the rapidity of its technological progress, and as such no subject should have a greater claim to inclusion in the school curriculum than CDT. It is this factor, the author believes, rather than the demand for some form of vocational training coupled to a raising of standards, that should have been stressed in James Callaghan's (1976) Ruskin speech.

If one accepts this argument for its inclusion in the curriculum, what form should it take, and what should its main concerns be? The author offers the following:—

(i) The curriculum should recognise its duty to supply the technologically equipped people that society requires. However, technologists of the future will require an education that takes them far beyond any list of skills. In the 1980s this means an adaptability and flexibility to continuing development. In essence, the need not only for technical and manipulate skills but also those cognitive abilities that underpin the design process.

(ii) The curriculum must help to prepare *everyone* to live in our highly technological world, this means schools have a duty to educate everyone for the society of today and tomorrow. However; we are often at a loss as to what this means. It is usually taken as requiring no more than 'teaching' or 'instructing' people to operate the 'machinery' they are likely to come into contact with in their everyday lives. Surely, there is more to the notion of education for a technological society than that?

Many of the social problems created in recent years have been the direct result of the failure of people to come to terms with technological advance; for technological change invariably leads to social change and not always for the better!

One of the main features of contemporary social change is the creation of increased leisure time for most members of society. It makes little sense to the author, therefore, to increase the vocational emphasis of the curriculum in a society whose citizens are more likely to indulge ever increasingly in leisure pursuits.

Education for 'unemployment' is perhaps more appropriate than an increase in vocationalist initiatives. The emphasis should surely be on the development of personal capacities rather than soon-to-be-redundant skills.

(iii) The curriculum must recognise and make its contribution to the overall processes of education itself. This is a role which takes the subject far beyond the confines of CDT:

'. . . any subject wanting to claim a curriculum place for the future needs to present evidence of

having "means" and "ends" which can contribute to the overall aims of education' (Dodd, 1978, p.74).

In the author's view, CDT has more to contribute than most subjects to these 'overall aims of education'. Moreover, this is true no matter how one views these aims. If one sees the main purpose of education as initiating the young into the several forms of knowledge or understanding postulated by Hirst (1965), CDT seems to the author to offer access to all or most of them. If, on the other hand, one prefers to view education as a development of a more individual kind, areas of experience to which students need to be exposed, CDT can again provide experiences of a wide range and variety.

Many curriculum changes have been achieved in CDT in spite of several attempts to give the subject a different role. It may well serve to reflect on the ill-fated attempt to develop technical education as a separate element within a tri-partite system of secondary education, and its subsequent failure. It was not just that students with this kind of aptitude were unable to be identified at an early age; but rather that the conception was a mistaken one. Technical education is not different and, hence separate from academic education; it is itself a form of academic education.

Perhaps this misconception can be brought into contemporary focus as recent evaluators of experiential learning (including work experience) have concluded that although young people enjoy these experiences immensely — often in marked contrast to work in school — the problem has been to disentangle the novelty effect (which, arguably, affects any 'new' out of school activity) from the interest enjoyed by the students in this mode of learning. At Edgwick there is strong evidence to support the fact that interest in such activities wanes in the second year of the course. This, perhaps, serves as a warning that, just as technical education is not inseparable from academia, so long term simulated work experience is not, perhaps, the alternative to school based learning, that many educationalists and industrialists had envisaged.

Assessment and Evaluation

After studying the work of a number of evaluators, particularly that produced by Robert Stake (1967), the author produced a model which, in his opinion, could be integrated into the existing Edgwick system.

At present the assessment system used by the DESP is 'student centred' and takes the form of a negotiated profile (Figures 2 & 3). The author sees no reason why this approach cannot continue within the boundaries of his 'learning programme'. Some modifications may be necessary, however, in order for the programme objectives to be critically assessed. This could, perhaps, be overcome by the inclusion of a 'Pupil Profile Report' more suited to the module under review (Figure 4). Moreover, by using a system based on 'Bi-Polar' scales, the

Figure 2

STUDENT RECORD - OCCUPATIONAL EXPERIENCE

NAME _____ 4th Year 1 2 3 4 5th Year 1 2 3

SCHOOL _____ SUPERVISOR.....

SECTION _____ ATTENDANCE HALF-DAYS _____

<p>Work completed but could be improved</p> <p>Work was often unfinished</p> <p>Completed work with very few mistakes</p> <p>Worked to a high standard</p> <p>Began to work with others</p> <p>Preferred to work with others</p> <p>Helped others in the group</p> <p>Found it difficult to work with others</p>	<p>Work completed</p> <p>Needed help to complete work</p> <p>Standard of work has improved</p> <p>Achievement</p> <p>Worked to work with others</p> <p>Preferred to work alone</p> <p>WORKING WITH OTHER STUDENTS</p>
<p>Enjoyed the work</p> <p>Began to show interest</p> <p>Accepted tasks with encouragement</p> <p>ATTITUDE TO WORK</p> <p>Lost interest quickly</p> <p>Accepted tasks with encouragement</p> <p>Worked well with adults</p>	<p>Accepted tasks with encouragement</p> <p>Was interested all the time</p> <p>Accepted tasks willingly</p> <p>Lost interest quickly</p> <p>WORKING WITH ADULTS</p>
<p>Worked well with adults</p>	<p>Became more used to working with adults</p> <p>Was uneasy working with adults</p>

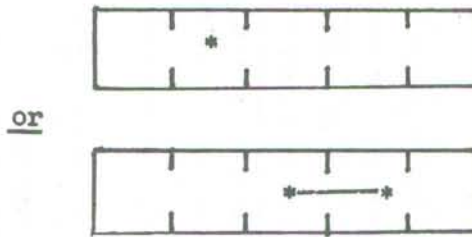
Figure 3

<p>Worked in an organised way</p> <p>Planned ahead</p> <p>Worked in a disorganised way</p> <p>Began to plan ahead</p> <p>PERSONAL ORGANISATION</p> <p>Coped well with unexpected events</p> <p>Needed help to work in an organised way</p>	<p>Was prepared to ask for advice</p> <p>SEEKING HELP AND USING INFORMATION</p> <p>Needed help in using information</p> <p>Worked with little need for help</p> <p>Did not seek help</p> <p>Used information well</p> <p>Waited for instructions</p>
<p>Made good use of time</p> <p>USING TIME</p> <p>Did not use time well</p> <p>Began to make better use of time</p>	<p>Needed constant safety supervision</p> <p>AWARENESS OF SAFETY</p> <p>Carried out safety procedures</p> <p>Considered safety only when reminded</p> <p>Took action to improve safety</p> <p>Became more aware of safety procedures</p>
<p>STUDENT SIGNATURE.....</p> <p>SUPERVISOR SIGNATURE.....</p> <p>DATE.....</p> <p>FURTHER COMMENTS</p>	

Figure 4:
An example for use in
a 'Practical' problem
solving situation

PUPIL PROFILE REPORT				
PUPIL NAME	DATE	FORM	YEAR GROUP	TEACHER INITIALS
PROJECT DETAILS				
CRITERIA FOR MARKING	HIGH	ATTAINMENT	LOW	
1. UNDERSTANDING THE PROBLEM.	FULLY UNDERSTOOD THE PROBLEM.		VERY POOR UNDERSTANDING OF THE PROBLEM.	
2. GAINING INFORMATION (RESEARCH).	EXPLORED A WIDE RANGE OF INFORMATION.		NO USE OF ADDITIONAL INFORMATION.	
3. USING INFORMATION	USED INFORMATION TO THE FULL.		LITTLE USE OF INFORMATION IN THE DEVELOPMENT OF IDEAS.	
4. QUALITY OF FINISHED PRODUCT.	WELL EXECUTED TO A HIGH STANDARD OF CRAFTSMANSHIP.		POOR QUALITY OF PRODUCT INDICATING LOW LEVEL OF MANIPULATIVE SKILLS.	
5. PRESENTATION (INCLUDING DRAWINGS, MODELS ETC)	WELL PRESENTED SHOWING A HIGH LEVEL OF AESTHETIC AWARENESS.		POOR LEVEL OF PRESENTATION WITH ITEMS MISSING OR INCOMPLETE.	
6. QUALITY OF PUPIL EVALUATION.	ABILITY TO CRITICISE OWN WORK IN RELATION TO (1).		UNABLE TO CRITICISE OWN WORK.	
7. ATTITUDE TOWARDS THE PROJECT.	HIGHLY MOTIVATED AND IDENTIFIES WELL WITH PROBLEM.		LOW MOTIVATION NEEDS CONTINUAL ENCOURAGEMENT.	
8. SOUNDNESS OF WORKING PRACTICE.	SYMPATHETIC USE OF TOOLS AND EQUIPMENT.		SHOWED LITTLE SYMPATHY FOR USE OF EITHER TOOLS OR EQUIPMENT.	
ANY ADDITIONAL COMMENTS BY THE TEACHER.				

necessity of placing a mark or grade is negated, thus removing the possible stigma of 'failure' as the student sees yet another 'D' or 'E' against his/her name. Hence, pupil attainment is scored by a marked cross in the appropriate box.



The position of the cross is related to the assessment criteria as laid down for each end of the scales. The listed criteria have no weighting in relation to one another and at no time should there be any attempt to provide a weighting or convert scores into a grade.

It should be noted that the use of 'Bi-Polar' scales is to familiarise students with the use of such a type of scale. If the student can understand the scale, it is relatively easy for him/her to explain it to his/her parents when a report is taken home. Many school reports have scales that mean little, even to parents who are well informed. Comments on reports are continually criticised by the media and within the profession.

This system of criterion-referenced assessment, using Bi-Polar scales, is an attempt to give a simple profile of pupil activity and achievement. The report should be easy for the teacher and student to complete and for the parents and any 'interested others' to understand.

The model profile could, the author believes, be used in any area of creative studies, that is, working in a design based, child centred manner.

Conclusion

One contribution CDT makes to education is that it offers a particularly valuable route to education for the less able student. A characteristic of the slow learner in the secondary school is that he/she is still at the concrete stage of operations and open, therefore, to the kind of experiences that CDT can provide, arguably, more readily than most other subjects. There are, however, in the author's opinion, many dangers in this scenario. For this kind of activity is often viewed as a means of keeping such pupils quiet and out of mischief — and possibly, in some cases, off the school site! Moreover, dangers exist for the subject too, since it is in part from such a clientele that it acquires its low status label. Teachers of CDT should perhaps be aware, therefore, of appearing to suggest that the subject has its greatest value for such students, while avoiding, or being avoided by, the more able.

Teachers of CDT should not fall into the trap of accepting a lower set of educational standards for the teaching of the less able; of joining with those who interpreted the laudable but simplistic prognostications of the Newsom Report (1963), which seemed to encourage teachers to provide students of average abilities with a practical education, thus merely providing such students with productive work to do with their hands. What the author does believe to be implicit in that Report, however, is that the concrete experiences were 'starting points' which teachers should be concerned to promote in *all* students .

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