

Teachers' Courses for the 70's

Factors affecting in-service training and how some of these were incorporated into a recent two-week course in Northern Ireland.

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For many years summer schools at a number of centres throughout Britain have been familiar hunting grounds for teachers. Not least for teachers of handicraft who have participated in courses ranging from blacksmithing to work with modern synthetic fibres. However, a wind of change is blowing through the aims and organisation of teachers' courses generally.

The enthusiasm of teachers to enhance their vocational and professional status will probably go far towards ensuring that change continues. But where will change take us? Probably of most significance there is an increasing awareness amongst teachers that there is a need not only for courses offering specific technical skill and knowledge but also for more insight into the educational implications of work with tools and materials. Already teachers are demanding such courses and consequently the structure of present arrangements will need to become more flexible inasmuch as opportunity for teacher participation in organisation and involvement in decisions relating to content may have to be increased.

The next few years may find these factors commonplace; the next decade may also provide scope to gear in-service courses to teacher qualifications and remuneration. As with any rolling reform some factors may be slow in becoming established. For instance economics appear to be set against the *continuous* involvement of teachers in any substantial in-service programme. Furthermore present building and staffing ratios in schools, colleges and universities militate against more comprehensive part time and full time participation in a wider network of continuous teacher education. Another point which may gain support whilst curriculum trends advocate the development of individual resources is that those outside of the education service, together with pupils themselves, may have contributions to make in developing more relevant teachers' courses.

Some progress will be achieved in these directions and it is likely to emerge simultaneously with 'new' educational planning techniques. In the interests of effectiveness and efficiency principles of management and systems analysis are already gaining popularity amongst educational planners. A corollary of such approaches will necessitate gauging the rate of return, perhaps in part measured by changes in curricular activity. Whilst such precise planning may prove controversial there is cause to suspect that educational targets require objectively determined schemes that ensure all teachers are reached and that follow-up and feed back channels are created.

Clearly, it will be from practical experience of organising courses that some of these ultimate targets will draw nearer. Some headway was made during a recent

two-week course in Belfast. During this period the Northern Ireland Ministry of Education worked in liaison with the Schools Council Research and Development Project in Handicraft. The course which was attended by twenty teachers was notable in that it was based on the notion of work with materials rather than the traditional compartmentalised versions of wood and metal. 'Education through the use of materials', if considered in relationship to teachers attending in-service courses, is not only a term which places the teacher in a situation where he has to rethink in general terms, but also allows known concepts of craft education to be evaluated within the framework of recent developments. Thus from the outset there was an acceptance and expectation of work across the familiar subjects of areas of woodwork, metalwork and art. Not that 'integration' need end there, indeed as it turned out there were several healthy instances of work which could rightly have involved some of the classroom based subjects.

When considering the structure of a course one very basic and important factor stands out, that is the variety of background experience the teachers possess as a cumulative body; often, however, the corollary to this is the absence of design training and experience. Thus the balance between the educational implications of the work and the acquisition of technical knowledge and skills by the teachers was constantly borne in mind. No one disputes the importance of technical content of courses since there will always be occasions for handicraft teachers to come together to explore and develop new skills and technologies. Indeed with the ever increasing range of materials becoming available for school use there may even be some acceleration for courses to provide the 'basics'. At the same time though 'new' materials must be placed in clear educational contexts.

An inherent factor in the introduction of any new material into school work rests on the 'design process'. This is one aspect of craft teaching where teachers feel least happy. Two main reasons may be isolated for consideration: the first is a feeling of inadequacy when dealing with aesthetic judgement, and the second is a frustrated search for starting points which lead to a certain degree of originality. Neither of these are valid fears on the part of the teacher because neither dictate success nor failure if design is considered in its true context in education. Defining design as a total educational experience in acceptable terms of reference we considered was our main objective with the teachers; at no time would a teacher be allowed to consider design without reference to children and their environment in a realistic everyday situation.

Craft skills in the use of equipment and in handling an exciting variety of materials we accept as the physical basis of our subject. This, however, is not enough if we accept that a wider intellectual development is to take place within the child. It was significant therefore that during the Northern Ireland course the intellectual benefits of tackling problems in a logical way, coupled with realisation in a 'new' material, should predominate.

We planned two major projects: the first consisted of a design situation involving the use of concrete and the second was a total experience involving the identity of a

situation in Community Service, a design process and a factory production of the design solution.

Involving the teachers in the design situation related to concrete as our first experience had distinct advantages. Apart from the problem of designing seating and wall decoration for a quadrangle, which produced a certain degree of appeal and enthusiasm, our main consideration in the early stages of the course was to demonstrate how simple themes and starting points could be developed into sources of ideas for further development. Using a thematic starting point divergent thinking was encouraged within the limiting factors of materials and imposed disciplines relating to shape. We found that a good response was shown in the method we used for shape experiment; many of the teachers were diffident about expressing ideas by drawing but came up with some very workable ideas when they used cut card shapes to form relief patterns. Perhaps the greatest interest was aroused by the wide variety of materials which were involved in the design investigation and solution stages of the 'design process'. The use of reinforced plastics for the wall-tile moulds was perhaps not unusual but the use of 'Tri-wall' laminated corrugated card for mould boxes and shuttering for the seats provided food for thought. The possibilities of this material are extremely wide and we found it of particular value in producing quick, effective full-size mock-ups of some of the ideas.

Interest in casting the concrete into the relief moulds was stimulated by the added novelty and, indeed, paradox of two English lecturers demonstrating their skill with shovels and mixer in Northern Ireland! Overall the mechanics of concrete and casting techniques received sufficient attention to outline the enormous possibilities at the R.S.L.A. level.

It is not difficult when dealing with a group of teachers involved in design to superimpose the tutor's influence to such an extent that the initial thinking of a teacher loses its identity; this also applies to children. Getting a student to perform in this way may be very satisfying in some respects but if the student is unable to identify what is a viable proposition for development, little is achieved in helping his powers of discrimination. Identification and discrimination is a constant process and it is often overlooked as the vital aspect of design education.

A valid experience in design depends upon a number of important considerations if any measure of success is to result. The attitude towards any new approach is partly governed by the teacher's own background and experience, and partly by his existing environmental influences—examinations, resistance from other colleagues etc. However willing a teacher is to consider an idea in education he will take as his main criterion the possibility of success of the venture in his particular school. His assessment of success will usually reflect his philosophy of education. It is important that a teacher who is to look ahead should reconcile a design experience where materials and techniques are related to a situation of analysis, synthesis and rational examination of a conclusion to a problem rather than a finished article. In this way the educational needs of the pupil would be better served. The open-ended situations which our divergent thinking produced in the early design stages of the concrete

project aptly demonstrated this approach to education. Converging in our thinking to more confined and workable solutions produced a universal response from the teachers to the effect that if we took the project no further they had gained a valid experience.

During the second week a similar design approach was adopted by half the group but with a different application; this acted as an option for the teachers. A new set of objectives were introduced that laid stress on the social benefits of work with materials. Teachers in several parts of Britain have already illustrated that when work with materials is coupled with community development projects there is at least opportunity to proceed beyond the manual and intellectual stimulation associated with workshop activities. In this case a geriatric unit in the vicinity of the host school provided ample opportunity to examine possibilities.

A visit to the unit illustrated that the old folk and nursing staff were forthcoming with an abundance of design situations that could readily have been drafted into the work of any average handicraft room. Lack of time prevented full exploitation of the situation in which several subject areas could have contributed towards the background necessary for total insight and understanding. A relatively simple problem, the production of twenty-four footstools, was adopted. The stool had to perform to certain physical requirements and needed to be acceptable in its appearance in the eyes of the patients. Nevertheless the situation presented the group with a series of experiences that could be interpreted into meaningful activity on the part of pupils.

Besides the principles of the 'design process' several other factors were drafted into the scheme; all of which may have some bearing on the future arrangement of teachers' courses whilst at the same time indicating possible work with pupils.

In the first instance the actual design situation was identified by visiting the geriatric unit. Until this visit was made the teachers' activities during the second week could not be determined. Such flexibility calls for no less thought on the part of those organising the course since apart from arranging the visit some foresight is required of eventual design solutions and materials and equipment accordingly ordered. This in no way implies preconceived notions of definite requirements; what it does mean is a wide supply of materials likely to be of use in a range of situations.

An interesting innovation was the involvement of pupils throughout the second week. They joined the teachers as 'equals' in the design, production and delivery of the footstools. In a way they acted as 'checks' confirming or destroying at first hand the opinions of the teachers relating to possible pupil-role in new developments. The short term usefulness of pupils in this way was evident; it was demonstrated that even during the summer vacation pupils can gain much enjoyment from school work! However, the 'newness' of the work undertaken undoubtedly contributed to a feeling of satisfaction.

As well as the 'newness' of the design approach there was something fresh in the production of the footstools, since teachers and pupils worked together on a 'production line', which they designed themselves. Production line techniques partly influenced the design of the footstool which led to the reorganisation of the workshop.

Plans of the workshop were prepared; flow charts indicating the route of each component from raw material to assembly line were carefully planned; the allocation of jobs to ensure the continuous involvement of the full team called for much discussion. Obtaining special materials which could not have been anticipated served usefully to employ some team members between the approval of the final design and the commencement of production. The design and production of jigs for use at the different work stations formed an important aspect of preplanning stages whilst at the same time thought was given to time schedules, especially those relating to finishing and assembly where drying time of paint and glue were considered. In the event, since the production sessions covered only two days, it was necessary to work overtime!

Distribution and delivery of the finished goods always form a highlight of such projects. It is at the 'hand over' situation that much spontaneous evaluation can take place. Not only does one look for the pleasure of the recipients but for the growth in stature of the donor—be it teacher or pupil. Experience suggests that this final act should be built into community development projects. It is not unusual to hear of pupils who, after much effort, have received a cold "Oh, put it over there. I'll tell them you called" sort of attitude; at all costs this should be avoided.

Discussion in the planning stages on the likely pitfalls of factory simulated conditions in school revealed some useful points. For example, what are the dangers of the charge that such techniques provide cheap labour for the mass production of items for the school? And what of the pupil (there are many) who is carried by the others and makes little or no contribution? Can mixed ability groups form a compatible team? What of cost, where do we get the money for such ventures on limited per capita? The economics and the public relations side were considered to be important aspects and the support of local firms for certain ventures might even be considered.

All this convinced the teachers of the potential for the occasional adoption of various forms of school based 'factory days'. Clearly pupils are attracted to the man sized problems associated with line production and, on this occasion, they responded equally well to problems of planning as they did towards participation in the production sessions.

Overall, the two-week course provided practical experience that will contribute towards the general development of teachers' courses. Throughout seminars at the course, as well as at the de-briefing session, teachers indicated their desire for further courses of this nature. Opinions strongly favoured more experience of the 'design process'. Teachers in Northern Ireland will shortly have further opportunity to consolidate trends which have already brought new vigour to their work.