

Evaluating the Craft, Design and Technology Department

One: Why We Should Review Craft, Design and Technology Departments

After a century of fringe importance, the activity which we now call Craft, Design and Technology is coming out of the cold. After twenty years of accelerating development CDT is being rooted into the school system. There is even a possibility of it becoming a core area for study at secondary level. How can practising teachers of CDT help to ensure that this vitally important subject is developed to its full potential?

Any system which is directed towards certain end results will need to be continuously reviewed and sometimes modified. If CDT is to become a valued member of the educational club, its teachers will need to develop a clarity of vision, confidence in the importance of what they offer, professional ways of monitoring and improving the quality of their practices, and not least, a stronger impulse to articulate the educational value of their wares. *Systematic* evaluation procedures will be a powerful tool in this exciting endeavour.

We can all see that greater public accountability is being demanded from education. If we teachers do not satisfy this demand, then others may well step in to try themselves. There is still, in some circles, a residual ignorance of the rich and diverse experiences which accrue to pupils in a good CDT department. To dispel this ignorance, departmental evaluation must involve those at the cutting edge: the teachers, and for that matter, the pupils themselves. This is not to deny that others can make perceptive and significant contributions. The national trend towards accountability will no doubt give rise to an integrated approach in which Her Majesty's Inspectorate, Local Education Authority Inspectors, and school senior staff will all play a major role. As professional specialists, however, CDT teachers must insist on a share of the action. We must take time to stand back, affirm our aims and appraise our methods; arming ourselves in this way we stand a much better chance of reaching our goals. This paper is offered as a practical guide to help CDT teachers to do just that.

Two: Inside Craft, Design and Technology Departments

One of the main problems of evaluating a Craft, Design and Technology Department is actually knowing precisely what that department is. Some departments such as English and Mathematics are homogeneous. They are quite clearly understood. They have a long history within schools. They work through subject disciplines which are coherent, not too diverse, and which at school level at least, are held together by common themes and methods. They also feature prominently in research and

advanced education and this serves to confer a kind of academic legitimacy which is so important for acceptance in secondary schools. Craft, Design and Technology departments do not operate with this kind of support. They are often diverse combinations of subjects and activities; these lack common aims and methods, and there is no single powerful presence in the universities which will guarantee academic acceptance. It is not surprising that confusion about Craft, Design and Technology education is rife. Therefore, before we attempt to devise procedures to review the Craft, Design and Technology department, we need to clarify what it actually does. We also need to tease out themes and methods which, I strongly believe, bind together the diverse areas of such departments.

(a) Structures

Before comprehensive reorganisation, many secondary modern schools ran courses in 'Arts and Crafts', 'Housecraft' and 'Handicrafts'. Grammar schools offered rather less and those few technical schools operating, mounted enhanced programmes in technical and pre-vocational areas. Most of these schools had an important feature in common: they organised their courses through a number of small and separate departments. These departments differed from each other within the school but between schools there were many similarities between Art Departments or Housecraft or Handicraft Departments. In the smaller schools, the 'departments' frequently consisted of one teacher in a single room.

The reorganisation of secondary schools into larger comprehensive units changed all this. A few schools retained the fragmented pattern with a large number of individual departments, comprising one or two teachers (fig 1).

At the opposite end of the organisational spectrum huge conglomerations were formed, which bound together the above small units and, in some schools, other as well. Figure 2 shows such a 'Faculty'.

Within these extremes lies a plethora of different patterns. Some reflect the policy of the school and some the policy of the Local Education Authority. Compared with other major groups like English and Science, there is a confusing complexity of activities pursued. In broad terms though, there is a tendency to link together Art, Craft, Design and Technology, and Home Economics in a great majority of Creative Departments or Faculties. Because this paper is intended to be of sound practical use, it

Figure 1

Art	Pottery	Metalwork	Woodwork	Technical Drawing	Cookery	Needlework
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FACULTY OF EXPRESSIVE & CREATIVE STUDIES

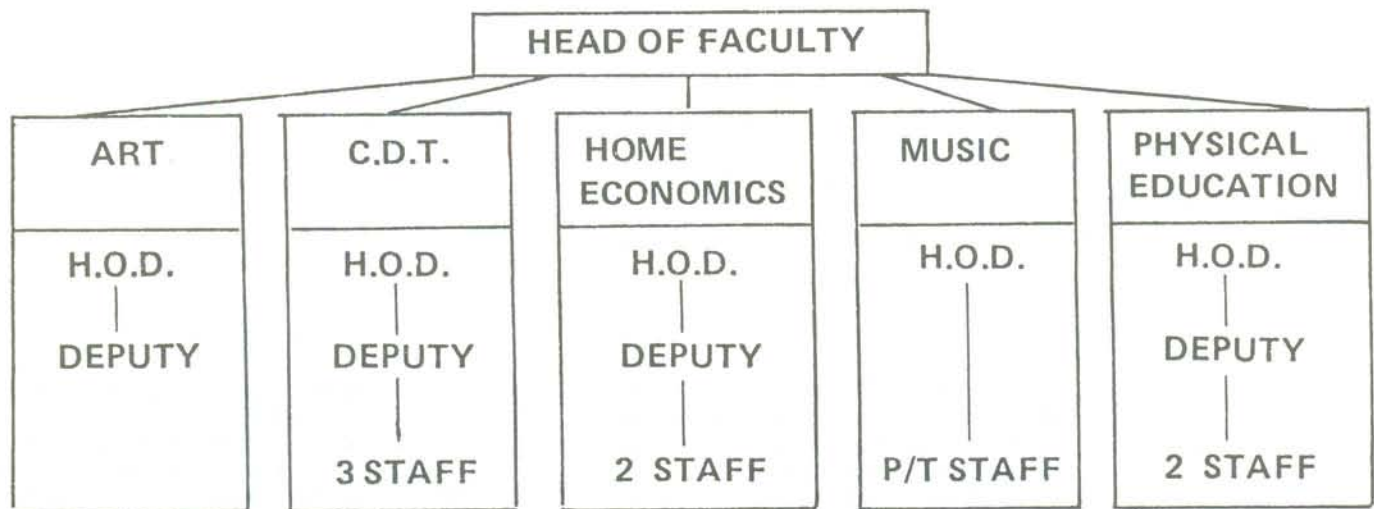


Figure 2

focuses on day-to-day practice. To sharpen its focus, I have restricted its coverage to Craft, Design and Technology. Other areas, need a specialised angle.

Craft, Design and Technology is a mixture of different activities: despite its apparently polymorphous nature, it is a highly coherent 'subject'. Its coherence rests on strong threads which powerfully bind together these activities. Because the threads are barely visible and frequently not recognised, I wish now to examine them. In doing so I hope to isolate those features which are distinctive to Craft, Design and Technology Departments and which conceptually hold them together.

(b) Distinctive Features

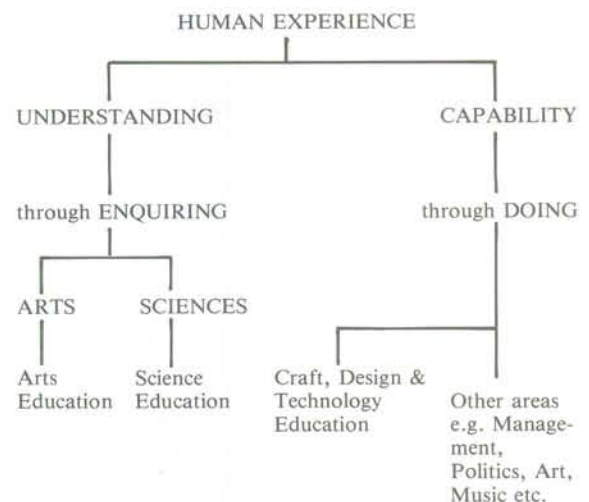
We need to begin with ways of viewing school knowledge. Although much has changed in the last few decades, it is clear that secondary schools transmit knowledge which is stratified into different status levels. Generally, the more abstract and 'pure' the knowledge, the more highly prized it will be; the more concrete and 'applied', the lower will be its status. Within this pecking order, Physics and History for example will be more highly regarded as academic activities than will be Home Economics or Sculpture. This state of affairs in our schools reflects deeply embedded features of our society² and it reveals clues which point to the essential distinguishing features of Craft, Design and Technology Departments. In revealing these it provides the key for evaluation of these departments.

In the late nineteen fifties C P Snow³ campaigned to increase the influence of science in our society. He argued that our society and education were concerned to develop UNDERSTANDING through the two 'cultures' of the Arts (including Humanities) and the Sciences and that the Arts tended to dominate. Since then, the Sciences have become more influential and together with the Arts, they do dominate our present schools in a number of ways. They are obviously of vital importance to the developing mind and to society as a whole because they foster understanding of mankind and the universe. They are both, however, mainly concerned with UNDERSTANDING. Important as this undeniably is, it does not on its own provide a complete induction into human experience. It misses out those vast areas of activity which are concerned with fulfilling needs, solving practical problems, managing events and creating things. This area of doing, managing and making is increasingly being referred to as:

CAPABILITY

The underlying assumption of this paper is that schooling should offer a balanced programme by dipping evenly into all major areas of human experience, as simply summarised in Fig. 3.

Figure 3



This very simple model of the curriculum draws our attention to a single area of experience/action which is of tremendous social significance. My argument is that the area — CAPABILITY — forms the central distinctive feature of Craft, Design and Technology Departments. In doing so it complements the promotion of UNDERSTANDING which lies at the core of other major areas of the curriculum — Arts and Sciences. Obviously this is not to deny that Craft, Design and Technology Departments will also promote understanding; indeed learning through doing should produce a deep understanding. Their prime concern though lies with the development of ideas and the translation of these into working reality; in this translation one would expect understanding of our material culture to flourish.

This is inevitably vague given the amount of space available in such a paper but a full account of the argument is made by Professor Bruce Archer in the Royal College of Art publication — 'Design in General Education' (1975). The sceptical teacher of 'Woodwork' or 'Technical Drawing' may still be pondering on the tenuous connection between his or

her area and say Robotics. On the surface the differences between them are vast and obvious; this is why we expose pupils to different areas of experience given that each has its own unique contribution to make to their development. My analysis, however, attempts to reveal the deeper structure of these activities and I am arguing that lying at the roots of each is the generic concept of CAPABILITY. This concept is not only of vital importance to personal development and to society, as it complements understanding; it also enshrines the root activities of the Craft, Design and Technology Department and this forms its central distinctive feature. In doing so, it gives us an important clue about evaluating this department. It should be the source of departmental aims and its very essence — *doing* — points to the kinds of activity-based learning strategies which will be adopted. I will return to these ideas in section four.

Three: Cultivating the Right Conditions for Departmental Evaluation

Those teachers who have worked in industry may be familiar with deep resentment which simmers on some shop floors towards the idea of 'work-study' or 'organisation and methods'. Where workers on production lines assemble so many objects to the minute, to an acceptable quality, the purpose of work study is to analyse tasks and their performance to see if they can be speeded up or their product improved in quality.

Conflict has often arisen because assembly line workers have seen work study not in this light, but more as a means to get them to work harder. Underlying the conflict is a mix of contradictory ideas: a genuine fear of increased exploitation vs a real need to increase productivity in the face of outside competition; resentment created more by tactlessness than by work study itself vs impatience with barriers standing in the way of improved efficiency; and an all-round unwillingness to see the problem from every angle.

Work study is not welcome in many parts of industry and crude attempts in the past to introduce it have been known to bring assembly lines to a sharp halt.

Now, in schools, we work with colleagues trained to high levels of performance and whom we can rely upon to act professionally. It is unlikely that we would be foolish enough to treat such people as callously as the more extreme work study managers have done in manufacturing industry. It would also be unlikely for such a trained body of professionals to react with simplistic bloody-mindedness to attempt to evaluate their performance.

This does not relieve us of responsibility though. Whereas a Head of Department, may look upon departmental evaluation as an essential tool for the achievement of departmental aims, not all of his colleagues will agree. No matter what position we occupy in the professional hierarchy, we all have a basic need for security, and for the recognition of our worth, and this fundamental idea lies at the

root of whether or not evaluation will be acceptable to your colleagues.

I want to dwell on this important point for a while. We live and work in a complicated world. We react to this complexity by simplifying and interpreting reality according to our own vision of things. We need to do this to make personal sense of the world and to preserve our own peace of mind. Many readers will no doubt have encountered the teacher who for years has colonised the corner seat in the staff room and who makes such a fuss if anyone tries to use it; or the technician who in his endeavour to keep the workshop tools sharp sometimes stands in the way of your pupils who need to use them, in case they blunt them! Even if we are not all as rigid as this, we nevertheless have our own likes and dislikes, for particular studios/workshops/classrooms; for particular age-ranges; for specialisms within our area; for particular teaching methods, ways of organising children and so on.

As the pace of change accelerates and the lot of the teacher increases in complexity, there will be a fundamental drive for stability; a search for comfort in the familiar. In this way we cope with the threats which are inherent in change. Your teachers will be susceptible to such threats and if you are not careful you may cause them to feel some anxiety. Those of you who have been subjected to the uncertainty of an L.E.A. comprehensive or tertiary reorganisation of schools and colleges will know precisely what I mean. Unfortunately for the person trying to initiate change, the most common way for teachers to reduce feelings of anxiety will be to actively work to resist the change which caused it in the first place. This active resistance is rarely rooted in malice or villainy, although these motives may be present! It is quite simply a natural survival mechanism.⁴

If you want to run a departmental evaluation programme in your department your first task will be to consider just how threatening it might seem to your staff. The first reaction may well be to see evaluation as an implied criticism of current performance. Those of you who have attempted to develop ideas in school which run counter to the values of the teachers who will be expected to implement them will be sharply aware of just how easy it is for colleagues to undermine the effort. In extreme cases there would be a counter reaction to evaluation strong enough to ensure that the idea is never resurrected.

Having analysed this problem at some length, we must now consider ways of solving it. If evaluation, as a new and potentially threatening force, is to succeed in your department then it will have to be introduced very carefully and be carried out with great sensitivity and tact; it will only work effectively if relationships within your department are good.

A creative and cooperative interpersonal climate may emerge in a department as a happy accident. I would not bank on this however. One of the

primary roles of a Head of Department is to create such a climate within his team, and until it reasonably exists, it would be counterproductive to attempt to initiate a comprehensive evaluation programme. The first step in developing the right climate is to fully accept that you need to do it. After this you must work to create an atmosphere of discussion and the sharing of ideas; this means listening as well as talking; reacting to the ideas of others; and encouraging colleagues to talk to each other. The exchange of greetings, coffee break discussions, departmental social events, are important, just as are regular departmental meetings. At all times the Head of Department needs to signal the idea that he is interested, will listen and be available for consultation, and respond with actions where appropriate. In complex Craft, Design and Technology departments where the Head of Department is likely to have emerged from one of a number of distinct subject areas, it will also be important to ensure that everyone understands that he has no favourites and always takes an overall view.

In the long term, and this will depend a great deal on your head teacher, a policy of choosing and appointing new staff who will fit into your team, and contribute new ideas and energy within the common viewpoint of the team, will be important. The Head of Department ought to play a key role here, as adviser to his headteacher. In our times of contraction however, when new appointments are something of a rarity, the Head of Department has an expanded responsibility to be aware of the views and needs of his staff, and to open doors, through INSET for example, for development. A coherent evaluation policy can be instrumental in sensitising the Head of Department to such signals. Your staff will need frequently to consult with you. It may help to run departmental daily business if you cloister yourself with your deputy every break and lunchtime. But isolating yourselves from other staff like this will do little for the cultivation of team spirit.

If you are available during your non-teaching time, not only will your staff who need to consult you be able to do so, but your very presence can be used to draw your colleagues closer together. One of the critical things that a close knit team will need to discuss is members' roles. When I talk to colleagues from other schools I am often astounded at the number of institutions which do not offer teachers clear written job descriptions. There seem to be even fewer schools in which jobs are regularly reviewed.

Some schools will have a management structure which has been planned or has evolved to meet agreed aims. Each teacher will have a written job description and a clear role to play in the organisation. Other colleagues will be able to read these descriptions, for example in a staff handbook so that everyone knows his colleagues' roles. Even in such organisations, however, the complexities of a teachers' job can never be precisely described; nor

can they be expected to remain the same. For these reasons, roles within your department will need to be periodically examined, and modified by negotiation if necessary. Such modification can play a big part in extending the experience of your colleagues for their own professional development. In schools with a less explicit management structure, and there are many like this, job analysis in the Craft, Design and Technology department will need to be more thorough, sensitive, and may take much longer to carry out. Once you have developed an evaluation programme, however, regular job analysis will follow as a matter of course.

Once you have decided to create such a programme you will need to plant it in fertile soil. It will be your initial task to make your departmental soil sufficiently fertile in this way.⁵

Four: What to Evaluate in the Craft, Design and Technology Department

Rome was not built in a day; nor will you develop a comprehensive evaluation programme for your department overnight. Your approach needs to be gradual, but not piecemeal. Work within an overall plan but try to keep it flexible: tackle the less contentious or less difficult areas first. In this way your team will gain confidence, accumulate experience and make continued progress.

I have already attempted to identify the distinctive features of the Craft, Design and Technology department. When developing your programme, however, you will need to include activities which are common to the whole school, as well as those which are unique to your department. Compared with 'academic' areas, Creative education has not been subjected to a great deal of research, and its literature is very sparse. In identifying those important areas of your department which are to be evaluated, you will have very little guidance to rely on from this field of literature. You will therefore have to take the plunge yourself, and to do this with the knowledge that, so far, not many other people have really begun to tackle the task you are now undertaking. It will help considerably to do this with the collaboration of other members of your team.

An early phase in evaluation will be to gather information. A recent trend has been to make use of checklists and a number of L.E.A.'s have drawn these up for the use of their teachers for self-assessment. They vary in length and approach, and have brought upon themselves some philosophical and methodological criticisms. Despite these they can focus your attentions sharply, and in doing so provide an excellent starting point for gathering information.

Given the wide variety of approach in Craft, Design and Technology departments and their many different types of structure, it would be foolish of me to prescribe a detailed checklist. Not only would this fail to fully meet the requirements of different departments: it would also remove the highly

educational (for your colleagues) activity of producing your own checklist. It would also remove an excellent focus for collaboration and purposeful discussion. I am therefore arguing that each department should produce its own checklist, that all members should participate in some way and that the Head of Department should lead the exercise. To help you draw up such a checklist I list below a number of important categories for reference. The list is long: an effective checklist would be much shorter particularly at the outset. It may be wise to take only a section at a time.

(a) Underlying Philosophy

- i) Is there a clear philosophy underlying the work of your department eg to be concerned essentially with the development of capability?
- ii) If not, are there threads that could be woven into a coherent philosophy? What steps are you taking to bring this to fruition?
- iii) Is your philosophy expressed in aims and objectives?
- iv) Do these reflect and support the aims of the school?
- v) Do they promote cumulative experience, building on the work of your feeder primary schools and looking forward to post-school education, training, work and life generally.
- vi) How far do they match your school's cross-curricular policies eg multicultural education, language and numeracy across the curriculum, equal opportunities for boys and girls, catering for pupils with special needs?
- vii) How clear are colleagues in the department about these aims and objectives and to what extent is there consensus?
- viii) How effectively are they understood and accepted by the rest of the school?

(b) Translation of Philosophy into Curriculum

- i) Does the Craft, Design and Technology curriculum contribute in quality to the curriculum followed by *all* children?
- ii) Does it reflect the characteristics of those areas from which it draws? Have you avoided dilution or distortion of Capability to gain 'academic respectability'?
- iii) Are all staff aware of up-to-date thinking in their specialisms? Are there routine systems for tracking new developments and absorbing their acceptable features into your curriculum?
- iv) Are you sufficiently responsive to social change? Does the curriculum meet the changing needs of pupils and community?
- v) What leads you to believe that it will have the intended effects on your pupils? Can you justify its structure?

- vi) Is it arranged to make full use of the interest and special abilities of staff, and your facilities?

(c) Courses and Schemes of Work

- i) Is there an acceptable scheme of work for each course?
- ii) Do they reflect the structures of the areas of knowledge and activity from which they draw?
- iii) Are they sequenced to optimise learning and to match the ability and interests of pupils?
- iv) Are they broken down into units of appropriate length, each with a clear purpose which is explained to pupils?
- v) Is there an appropriate balance of activity and expository teaching, between negotiated and imposed work?
- vi) Does expensive equipment lie idle whilst pupils pursue learning activities which might be more profitably done for homework?
- vii) Does each unit of work have a basis in skills, concepts and attitudes?
- viii) Where necessary, have you adapted your teaching methods to accelerate skill development so that pupils are given sufficient time to explore concepts, to engage in problem solving and to apply skills?

(d) Quality of Learning and Teaching

- i) Are teaching strategies varied enough to match the wide range of activities eg structured for skill development, open-ended for certain types of problem solving, flexible for investigative project work?
- ii) Is there a distinctive creative and productive atmosphere in the department at all times? What contributes to and detracts from the maintenance/creation of such an atmosphere?
- iii) Is there a quality of motivation and discipline appropriate to practical activity rooms?
- iv) Are staff enthusiastically engaged? Do they expose pupils to their own creative work?
- v) Are pupils exposed to outside representatives of the 'culture' of Capability from the adult world of the home, the arts, design and industry?
- vi) Do you attempt to overcome sex-stereotyping and to cater for multi-ethnic and mixed-ability groups?
- vii) How are staff made aware of their own successes and failures in teaching, and pointed towards improvement?
- viii) Is there an effective use of educational technology?

(e) Pupil Assessment

- i) Are you clear about assessing products and artefacts as evidence of pupil

achievement/development, rather than as simple ends in themselves?

- ii) Do you assess all major areas of creative endeavour or do you focus only on the most easily assessable areas?
- iii) How aware are you of recent developments in the assessment of creative work?
- iv) Do you use a full range of assessment methods, including objective tests, multiple choice items, conventional written examinations, practical tests, coursework assessment, project assessment, interviewing pupils etc? How far do your assessment methods reflect the distinctive nature of Capability? How far do they distort what you aim to teach?
- v) Are your systems practical, reliable and valid?
- vi) How far do you use pupil self-assessment?
- vii) Do you attempt to produce positive profiles of achievement for all pupils?
- viii) To what use do you put the information when gathered? Do you use information to modify your teaching methods?

(f) Use of Resources

- i) To what extent are furniture, equipment and machinery arranged to promote efficient use?
- ii) How efficient is pupil access to equipment?
- iii) How watertight is your security for equipment and tools?
- iv) How far are rooms safe to use? Have you recently consulted outside experts eg LEA Safety Officers, Advisers/Inspectors, the Local Factory Inspector?
- v) What systematic routines do you have to ensure maintenance of safe conditions and to rectify problems as they occur?
- vi) What training have staff had in 'Health and Safety'? How do you ensure that staff and pupils are always aware of 'Health and Safety' in their work?
- vii) Is the system(s) of stock control thorough and practical?
- viii) How accurate and up-to-date are departmental accounts? Who keeps them? To which of the senior staff are you responsible for accounts?
- ix) Is the department always reasonably prepared for a visit from the LEA auditor? Are all records of stock, equipment and accounts up-to-date?
- x) Is stock control structured into the learning experiences of pupils?
- xi) How effective are in-school systems of equipment maintenance? Are technicians properly deployed across all areas of the department?

xii) How effective is your method of obtaining specialist LEA or outside contractor maintenance service?

- xiii) What steps do you take to ensure that your department receives an adequate share of school capitation? How successful are you in obtaining materials and money from other sources, eg parents' association, your LEA adviser/inspector, local industry?
- xiv) Does your department work cooperatively within the school's annual timetabling cycle? Are all your courses mounted in appropriate specialist rooms? Do pupils have sufficient time in your department? Are group sizes small enough for safe practical work?
- xv) Does the visual environment reflect the educational aims of the department? How much responsibility for this devolves onto pupils?
- xvi) Is there a regular system for the display of pupils' projects, staff work and exhibits from out of school? To what extent are these linked into the formal curriculum?
- xvii) How far do you make use of the community and the outside world through visits and work in galleries, libraries, museums, factories, studios etc? Do you integrate such experiences into schemes of work?
- xix) Do you invite representatives of the adult 'culture' of Capability to share experiences with pupils? Is this built into your routines or merely incidental?
- xx) Do you use Further Education and Art Colleges for link courses? How effective is liaison?
- xxi) How far do you tap industry and commerce for help with technical problems, materials, work experience?

(g) Management

- i) Do roles of responsibility within the department adequately match the work to be done?
- ii) How effectively are roles carried out? What methods are in operation to monitor role performance?
- iii) Is there a policy to regularly review roles with a view to change and enrich experience? Would 'role rotation' be feasible?
- iv) Is there adequate senior staff support for all staff? Do you regularly canvass the views of junior staff on this issue?
- v) Do you systematically attempt to analyse INSET needs, linked to the needs of the department and to the needs of your staff for personal development? Do you participate in departmental, school, LEA, and regional/national courses?

- vi) Are there adequate and systematic methods of looking after probationary teachers, student teachers, technical and ancillary staff?
 - vii) Do you contribute effectively to the general middle management of your school, making both general and specialist contributions, and advocating the cause of Craft, Design and Technology education.
- (h) **Organisation**
- i) Is departmental decision making compatible with the annual decision making calendar of the school eg timetable construction, examinations, reports, stock purchase etc?
 - ii) Do you delegate decision making to the lowest level at which it can be done effectively — to the 'point of expected delivery'.
 - iii) Is communication clear and effective? Are meetings conducted in a business-like and purposeful manner?
 - iv) Do you monitor the implementation of decisions and ensure that those with power use it responsibly?
 - v) Is there a clear system of pupils' referral and counselling, and does this match the whole school system?
 - vi) Do responsible staff keep their 'fingers on the pulse' by regular checking of the work of pupils?
 - vii) Is routine administration and control of information on registers, mark books, pupil profiles, reports, storage of examination results etc effective?

Checklists are useful to focus thought and provoke discussion. They can help to make a balanced appraisal of all your activities. They can also be cumbersome, unrealistic and if carried to extremes, reduce evaluation to a consideration of a myriad of trivial details, thus preventing you from gaining a grasp of the total situation.⁶ This danger should not arise, however, if the checklist is created with the characteristic of your school at the forefronts of your minds. Any less than useful elements will soon be revealed when tested against reality. There is a further advantage in creating your own list: if done collaboratively, and

sensitively, by all members of the team the exercise in itself can generate commitment to its use and will ensure that it remains firmly planted in reality. It will also enable staff to voice fears which will inevitably arise over contentious areas of evaluation — once voiced they can be left until experience and confidence have been boosted by evaluating the more non-threatening areas. To keep things on track, it would be useful to involve a member of senior management and an LEA adviser/inspector, not throughout, but as a consultant who may ensure that you work within sensible parameters.

Deciding upon what to evaluate is a complex issue and will involve an analysis of your department's activities. How to evaluate is a further issue, to be explored next.

Five: How to Evaluate the Craft, Design and Technology Department

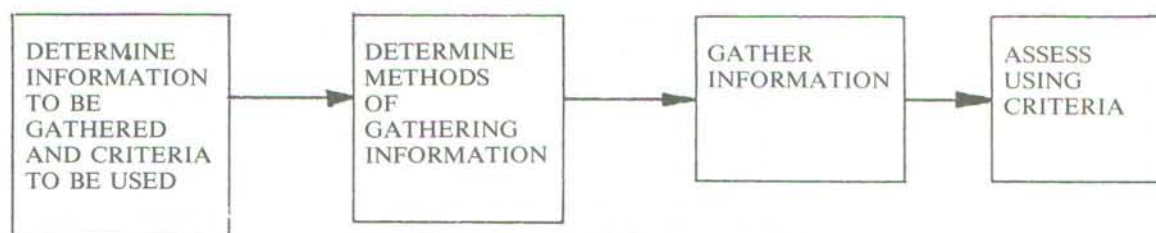
In essence, evaluation is an exercise in collecting specified information and then assessing it using certain criteria. It should follow a sequence as in Figure 4.

As a general principle any new method to be introduced into a busy school needs a clear aim in mind, a workable process and great care to ensure that it slots into existing school routines, wherever possible. If your school has a formal evaluation policy then you will key your department's process into this, making any necessary adjustments to sensitise the process to the specific characteristics of your department. If not, you must create your own, after obtaining the support of the head, and ensure that it works. To help you do this, the rest of this section is devoted to: general design principles for such a process; ways of conducting important tasks; a brief look at one process which I have used successfully. This is meant to be illustrative, not prescriptive and undoubtedly you will need a great deal of care to adapt my suggestions to the conditions you experience in your own school.

(i) Design Principles

- (a) There must be a reasonable climate of cooperation within your department; if this does not exist it is your job as Head of Department to build with the help of senior staff if appropriate.
- (b) The purpose of evaluation must be made quite clear i.e. that it is a supportive tool to ensure that

Figure 4



EAST WELLFORD HIGH SCHOOL

There will be a meeting for staff of the Craft, Design and Technology Department in B36 at 4.10 p.m. on Monday 21st January.

Agenda

- | | |
|---|----------|
| 1. Apologies for absence | |
| 2. Minutes of the Meeting of 19th December | } 5 mins |
| 3. Matters arising | |
| 4. The Observation of Practical Lessons (D. Watts: discussion paper attached) | 20 mins |
| 5. Security Precautions after recent break-in | 10 mins |
| 6. Arrangements for Mock Examinations (D. Watts: paper attached) | 5 mins |
| 7. Departmental Social Evening (P. Johnson) | 5 mins |
| 8. Any Other Business | 5 mins |
- The meeting will end at 5.00 p.m. Coffee and Tea making facilities will be available in B36 from 4.00 p.m.

you formulate aims and methods, determine your successes and failures, and make changes where necessary. Any sinister 'Big Brother' fears must be dispelled at the outset.

(c) Attempt as much as you can collaboratively. One sure way of gaining cooperation, and of devising a system acceptable to all, is to make use of everyone's ideas. However, to do this requires some skill in group management and the extent to which you 'open-up' proceedings will depend upon your current level of skill.

(d) If you prepare a checklist of what to evaluate, or a list of evaluation methods to use, have them appraised by your head teacher and specialist adviser(s). Between them, they will have accumulated a lot of wisdom and you can save time and effort by tapping this.

(e) Devise a process which is:
 Systematic and matches school routines;
 Workable and realistic;
 Sensitive and non-threatening;
 Capable of inspiring confidence;
 Broad enough in scope and technique.

No one technique will give a totally accurate picture; the more techniques you focus onto a particular area, the more accurate a picture you can gain as you cross-check evidence. Researchers call this 'triangulation'.

(ii) Techniques to Use

(a) *Running Profitable Means*

A craftsman's tools are quite inert; they have to be skilfully wielded if they are to achieve results. In themselves, meetings are similarly neutral. I have been to some excellent meetings whose purposes were clear, which were efficiently run, and which generated lots of positive action. Such meetings are a pleasure to attend and they pinpoint the reason for holding meetings in the first place, namely that a **MEETING CAN GENERATE MORE THAN THE SUM OF ITS INDIVIDUAL MEMBERS**. I say **CAN** because there are other kinds of meeting, and it has been my sad misfortune to attend some of them. You may recognise the symptoms: the time and sometimes the venue are not clearly specified; just before the meeting the chairman discovers that the agenda sheets have been left locked in the secretary's filing cabinet, and she has left to visit her dentist; participants saunter in at odd times and frequently disrupt proceedings and each time, the chairman indulgently stops business to bring the latecomer up-to-date; the chairman himself is either ineffectual or a bully, and he allows discussion to ramble from anecdote to anecdote, with the occasional flare of temper and unchecked slanderous oath; the room is disorganised — some members cannot see others, some sit on chairs, some are perched on desks and Happy Harry sits cross legged on the floor; some participants are locked in animated private discussions, others seem to be

bored, if not asleep; and as an ostentatious form of protest self-righteous Jim sits marking homework and Sharp Sally staples Art work to the display boards; less flagrantly Old Fred calculates tomorrow's race odds and Smiling Mary sits knitting tea cosies in the corner; a long way from the end, people begin to slope off quietly, or not so quietly, leaving an assortment of remaining members, a lot of hot air, and no clear way forward. It is no wonder that some of the teachers who have had to endure this type of meeting are reluctant to give up time to attend others.

If they are to be productive, meetings must be efficiently run.

Although, like athletes, some teachers seem to have an inborn flair for running meetings, anyone who takes the trouble can learn the component skills. The following guidelines are offered to help you do this.

Preparation Before calling a meeting, make sure that you have clearly worked out its purpose and be sure to explain this purpose to participants. Meetings can be used for a number of purposes e.g. to exchange information; to explain or confirm ideas, or to determine how clearly your team understands them; to identify and discuss issues, developments and problems; to offer support. In a more Machiavellian manner, they can be used to apply peer group pressure to encourage members into certain kinds of action.

Agendas, minutes and any supporting papers should be circulated in advance to give people time to prepare, digest, and marshall thoughts. Members should also be given the opportunity to place items on the agenda. Items should be listed in order of importance. Staff will then be dealing with the most important questions at any given time. Whenever possible attach a time limit to each item. This provides a disciplined framework for discussion and will promote a business like atmosphere. Fig 5 shows an example of such an agenda.

Immediately prior to the meeting create the right atmosphere within the room. Lay-out the furniture to facilitate discussions and if appropriate, to focus attention on the chairman, and arrange for any necessary aids such as an overhead projector to be available and working. If the meeting is to be held at lunchtime or after a hard day's teaching, try to arrange for refreshments to be available.

Progress The main task of the chairman will be to ensure that the meeting keeps to its purpose and

EAST WELLFORD HIGH SCHOOL

Minutes of the meeting of the Craft, Design and Technology Department held in B36 at 4.10 p.m. on Monday 21st January.

Present: D. Watts (Chair), J. Lang, F. Cowling (Minutes), P. Johnson, V. Wells, A. Bailey.

1. *Apologies for Absence:* G. Smith (Deputy Head)
 2. *Minutes of the Meeting of 19th December:* read and accepted
 3. *Matters Arising* Item 2: all tools stolen in the recent break in will be replaced. Itemisations, including costs, to be given to D. Watts by Friday 25th January.
 4. *The Observation of Practical Lessons:* D. Watts outlined his proposed timetable for the observation of lessons which the team agreed to implement at the last meeting. After general discussions the following points were agreed: (a) No written comments would be made without permission; (b) Each lesson observation would be followed up by a confidential discussion; (c) The attached timetable would be adhered to.
 5. *Security Precautions:* J. Lang proposed a number of new precautions which might improve security. He was asked to prepare draft detailed instructions for the department and to discuss these with D. Watts on Monday 28th January.
 6. *Arrangements for Mock Examinations:* D. Watts' arrangements were accepted, but it was agreed to hold the 16+ practical exams in B34 not B33.
 7. *Departmental Social Evening:* to be held at the Black Bull on February 27th at 7.30. P. Johnson to collect money and make arrangements.
 8. *Any Other Business:* V. Wells drew attention to the new audio visual equipment in the departmental resources room and offered to demonstrate its use by arrangement.
- The meeting closed at 4.55 p.m.

progresses efficiently. Control should be firm yet patient and tactful. The chairman needs to be well organised, efficient and supportive. His authority will be enhanced if he has a good grasp of the issues and a competent way of speaking and listening. These are skills which can be developed. At all times discussions should be through the chair and should stick to the point. Discussion of more than one item at a time is confusing, counter-productive and should never be allowed. Points of disagreement should be thrashed out logically; where possible a consensus should be arrived at, and decisions agreed upon and noted. The chairman should allow for personal views, and humorous comments but should not let the meeting become anecdotal. Discussion can be instrumental in changing attitudes and stimulating cooperation, but if badly handled can be a time waster. All members will have something to contribute and one very important task is to help them to make this contribution. Some shy members will need to be encouraged to speak. You can do this by asking easy questions at first so that they gain in confidence as they prove to themselves that they can contribute in a worthwhile manner. Other members, whether they be more loquacious, self-important or simply argumentative may need to be prevented from monopolising the discussions. A good tip is to cultivate the more positive members and to make frequent use of their contributions to discussions. Whilst meetings must be well prepared and properly conducted, however, they need not become impersonal. Work to develop a style which suits both you and your team and be sure to publicly recognise hard work, and initiative from individuals in the team.

Concluding At the end of a meeting, briefly summarise decisions reached, the jobs that have to be done, the staff responsible for doing them and their deadlines. This will clarify things and help to ensure an equitable workload. It also helps reassure staff that they are making progress and that time is not being wasted. Depending on your own situation you may have to check that jobs are being carried out and cajole people if necessary.

Administration Extensive minutes will not be necessary. Details of attendance, decisions agreed (and any major disagreements), clarifications of those responsible for implementation and their deadlines are all that is usually needed. Copies should be kept by the HOD, meeting members, and circulated to appropriate senior staff. Fig 6 shows minutes that might have been taken at the meeting referred to in Fig. 5. You may ask your deputy to take minutes every meeting or alternatively rotate the responsibility alphabetically through the whole membership body.

Monitoring Finally, even when you feel that you have mastered all of the guidelines, you need to constantly monitor your performance. An 'outsider'

can be very helpful here. I remember ending the first large meeting I chaired. I was leaving, congratulating myself of how well things had gone when an experienced head of year approached me. After praising some of my performance she very tactfully pointed out my mistakes, as she had seen them. She was right, and I had quite simply not noticed making them. I learned two lessons from this encounter. Firstly, others will always notice aspects of your performance which you fail to notice, and secondly their insight can usually be very valuable. I suggest that you frequently ask your colleagues for their comments, and occasionally invite one of the senior staff to come along and observe your performance. Self evaluation is a very useful tool but is only 'two-dimensional'; the reactions of others are vital in filling out the picture.

(b) *Observing Lessons*

To be observed by another teacher can threaten both experienced and inexperienced teachers alike: it can also be just as embarrassing for the observer as for the observed. Without question though, it can reveal deep insights into the quality of teaching, and recognising these is a first pre-condition for improvement. It is well worth the effort therefore to create the climate within your department in which mutual lesson observation is welcomed. Those of you who work in open-plan areas and are therefore used to performing in front of other

colleagues may find that the climate already exists; others may have to work hard to achieve it.

The best classroom observation is reciprocal. Teachers can learn from watching their Head of Department, just as the Head of Department will find it invaluable to view his staff. Teachers may increase their own confidence in their Head of Department by watching his expert performance; they also should welcome the chance to show him their own skills. By observation he should become aware of the pulse of his department; to see how well aims are being transacted in the studios, workshops and classrooms; to assess the suitability of teaching approaches, learning materials and equipment; to learn something of the relationships between his teachers and their pupils; and to become aware of and acknowledge hard work and good performance. It should also help the teacher to demonstrate any difficulties under which he works, as a prelude to seeking improvements.

Preparation This is the key to success and it begins by discussing the purpose and process of classroom visits with all teachers in your department. You need to explain why the visits will take place and just what will be involved. If you are planning a comprehensive programme to view all staff, then it is vital that everyone is clear that *all* staff will be observed! The activity should not be of a crisis fire-fighting type, to be inflicted upon only those teachers who are having trouble; it is an essential part of the Head of Department's job to know how all of his staff are performing; likewise all staff will have something to gain from carefully planned observations.

Although the Head of Department should be able to visit any lesson in his department simply by virtue of his job, he would be most unwise to begin without discussion and mutual agreement. The vital task is to *NEGOTIATE ACCESS TO THE CLASSROOM, WORKSHOP OR STUDIO*. Bargaining in may be one way of entry, but it is quite likely to land you on the floor. Ask any teacher to suggest the lessons you attend and to include a 'successful' and a 'problem' class.

Of course, many teachers will not have 'problem' classes but they will always have some misgivings about the performance of some classes. You should attend both 'successful' and 'problematic' classes. Once you have committed yourself to attending a lesson, do all in your power to turn up; and be on time! Familiarise yourself with the scheme of work and lesson content in advance — be as informed as possible before you arrive.

Progress Stay for the whole lesson to see how effective each phase is, and how they are linked. Be as unobtrusive as possible: you do not want to put the teacher off his stride; nor do you want to influence the behaviour of the group. Talk to a selection of pupils about their work to see if they clearly understand what they are doing and making,

and if they are learning. Look in particular for a sense of purpose, creativity and problem solving; one way of gauging this is to try to assess just how much pupils are committed to achieving the results they have been pointed towards. Check the pupils' work for evidence of long term development, achievement and the setting of homework. Pay particular attention to the organisation of resources, equipment, tools and machines, and the extent to which pupils are using them safely and confidently.

Also try to gauge the quality of the whole lesson. Are control and management satisfactory? Does the teacher have a good rapport with the group and do you detect a sense of pupil involvement, creativity and accountability? Was the lesson adequately prepared and did it fit into the scheme of work? How far was the teacher (and pupils) aware of the concepts, skills and attitudes underlying the lesson content? Were all levels of ability catered for? Was sex-stereotyping minimised? Were administrative procedures (registers, marks, issuing and collecting of stock, tools, and equipment) satisfactory?

Conclusion Making notes may be necessary: if so keep them brief, make them unobtrusively, and show the teacher afterwards. If you feel that writing them during the lesson is inappropriate, write them immediately afterwards. Follow up observations by holding an 'appraisal interview', guidelines for which are given below.

(c) *Appraisal Interviews*

Appraisal interviews can be used in a variety of situations, for example — when following up lesson observations. Arrange to see the teacher involved as soon as possible after the lesson, so that events are still fresh in both your minds. Your comments will seem more relevant and have greater impact as a result. The meeting may only take fifteen or twenty minutes, but if there are problems or implications for organisation, INSET or curriculum, it may take longer. Further meetings ought to follow each lesson visit.

Preparation Before the interview clarify its purpose, do all you can to allay any fears, ensure a comfortable and private venue, so that you will find it relatively easy to progress in a relaxed and reassuring manner. Make it quite clear that the meeting is confidential, and that others e.g. the Headteacher or deputy in charge of INSET will be involved only with the awareness of the teacher.

Progress Begin discussion with things that are going well: explain your views and invite your colleague to express his own. Try to manage the discussion so that the teacher himself identifies any problem areas, having done this he is more likely to want to discuss them frankly. Reassure him that you are aware of any difficult circumstances under which he works and try to ensure that problems new to you are aired. Try to be sensitive to underlying feelings

Figure 7

The 'Design Process'	Running and Developing the C.D.T. Department
1. Identify Problem and Prepare a Brief	Agree on the need to evaluate, and plan the process
2. Specify the performance of the end product based on Analysis	Evaluate and set targets for achievement
3. Produce and Refine Solutions	Identify and Remove Barriers to target achievement
4. Realise the solution	Work towards target achievement
5. Test against problem	Monitor Progress

which your colleague may find difficult to express in words.

Conclusion End the discussion on a positive note. Having identified difficulties suggest possible solutions and make it clear that you will seek solutions elsewhere. As Head of Department you are much more than observer, you must advise and support. Follow the session up to monitor progress on those areas of development which were identified in the meeting. This will help sustain the interest of the teacher. It is also vital to attempt to satisfy any needs that have been identified e.g. for new equipment or a change in the timetable; if this is not done, the purpose of appraisal interviews may well become lost to some teachers.

Running such an interview is a delicate and skilful task and many Heads of Department may be tempted to shy away. This would be very sad as sensitively run appraisal interviews can be of immense value in identifying good and bad practice, creating solidarity and support, stimulating curriculum development and suggestions for INSET, and generally helping you to raise overall performance. It goes without saying that the ultimate beneficiary will be the pupil.

Following up lesson observation is only one use of the appraisal interview technique. Craft, Design and Technology teachers today have much more to do than perform within their specialist lessons — they are managers, developers and administrators, and also members of your team. You should hold a fairly lengthy interview with each of your teachers at least once a year to discuss performance in all of these areas. A checklist can be useful to give structure to such meetings but should not stifle discussion of topical issues. In such an interview you should encourage the teacher to comment at length on your own performance — when good relationships have been built frank and honest exchanges of this nature can be most illuminating. There are no certain guidelines on the timing of such meetings although I have usually held mine towards the end of the academic year to review progress over the whole year.

d) *Setting Targets*

In recent years variants of the 'Design Process' have been adopted by sections of many Craft, Design and Technology Departments. This process has a great deal in common with the process of running and developing the department itself. Fig 7 shows a simplified version of the analogy.

Certain kinds of Designer prepare a detailed specification of performance for the intended end product in order to clarify precisely what they are aiming for; they need to do this because of the complexities of the problems with which they grapple. Running a Craft, Design and Technology department is also a complex and busy affair and it is more or less true in this day and age, that a conscientious Head of Department will not be able

to satisfactorily tackle all his developments simultaneously. This is where *target setting* helps because it firstly enables you to identify a range of areas for development and secondly to place these in a workable order of priority. The main advantage of target setting is to focus attention on areas of priority in order to help you achieve results in the most straightforward and efficient way possible.

I am not advocating that you adopt a precise and rigid 'Management by Objectives' approach. Whenever this industrial concept has been applied to education (this has been mainly in the USA) the results have been unsatisfactory. Education and learning cannot be broken down into precisely defined objectives, as if they were production lines, and whenever this has been tried a great trivialisation has occurred. It would be equally stultifying to produce targets for departmental development in such precise and rigid detail; this would also prove to be too time consuming. However, the setting of realistic targets in a common sense way with time limits, deadlines and checks on achievement, is a very useful way to organise development in the busy school. It should lead naturally from an evaluation of where you stand, in the light of your aims, and it will also focus your attention on the barriers to target achievement. Once you have identified such barriers you can attempt, with some confidence, to raise them.

When setting targets, you will find it helpful to bear the following in mind. You need to be aware of present conditions before listing targets for their improvement — target setting is thus one stage in the whole sequence of review and should not be conducted in isolation. It is often productive to set them collaboratively — two brains are usually better than one and teachers are more likely to be committed to achieving targets if they have played a significant part in setting them. Set targets which reflect your aims, which are realistic in the light of conditions prevailing in your department or school, and which are not going to meet rejection because they need more resources than are available. Setting targets which are nearly unattainable might keep some of your teachers striving for perfection, but repeated failure is more likely to sap morale and dissolve interest.

Set deadlines for achievement, identify those people who will do the work, ensure that they have the information and resources to do so, and keep tabs on progress. Too often targets can be set in a state of mild euphoria, but when the day dawns for

the results to be delivered, all kinds of reason for inaction may surface. Analyse the barriers that lie in the way of your target achievement. If you do not do this carefully and specify ways of raising the barriers, any development which does occur will be merely accidental. Frequently banging heads against barriers will do little for high morale in your team. In this day and age of course, there is no guarantee that requests to lift barriers will be granted if they include extra resources. If you fail to make such requests in a clear and well justified manner you can be fairly certain that they will not be granted, however.

(e) *Analysing Data*

Not all areas of your work will succumb to useful data analysis and the first task here will be to identify those areas which can be appropriately examined this way. You may find some of the following areas of use in your departmental evaluation:—

- (i) the results of public and internal examinations and project assessments in comparison with results of the same pupils in other departments.
- (ii) capitation allocated to your department in relation to costs per pupil and to capitation awarded to other departments.
- (iii) the distribution of general ability (as diagnosed through your school's overall assessment processes) within C.D.T. groups to determine whether pupils of all abilities are given access to C.D.T. education.
- (iv) the numbers of pupils opting for 4th, 5th and 6th form C.D.T. courses in comparison with numbers opting to study in other comparable departments.
- (v) Safety record, particularly accidents.
- (vi) loss of tools and equipment through wear, theft and vandalism.

(f) *The Use of Outside Consultants*

The education service has experts at many levels whose job is not just to direct but also to support and facilitate. Your senior staff will have a vast pool of experience and you would be wise to tap this whenever possible. It will always be essential for your headteacher's approval if you are to initiate major change. Tactically, therefore, you should involve him whenever appropriate if he is to be persuaded of the logic of your ideas.

Most L.E.A.'s have specialist advisers or inspectors who will be talented people of wide expertise. Although they tend to be extremely busy people, they are the main source of specialist advice open to you and you should tap their expertise whenever you can. They may, like Her Majesty's Inspectors, make formal inspections of your department from time to time; the results of these can be most illuminating as they reflect your practice within the context of other schools, and

they should always be carefully considered by your team.

If you are close to an institution of teacher training which employs specialist lecturers in your field, you can sometimes make informal links which can be mutually profitable. The teacher trainers can be given access to events on the 'chalk face' and you can glean from them their perception of your performance.

In some LEA's, the specialist adviser/inspector may have grouped the C.D.T. departments into geographical consortia for the purpose of regular local meetings. If you are fortunate enough to be involved in one of these, and inter-school relationships are good, you should be able to use them as a broad forum for the discussion and evaluation of cross-school departmental issues.

(g) *Pupil Consultation*

Any good department will have cultivated relationships between staff and pupils which are based on mutual respect and consideration. In such circumstances feedback from pupils is freely offered and readily accepted. However, a more systematic attempt to gather the views of a broad spectrum of pupils can pay much greater dividends if conducted wisely. A former senior colleague of mine, when he was a head of department, used to plan his lower school C.D.T. courses annually on the bases of the interests and hobbies of incoming pupils. He used questionnaires to gather such information, analysed the results to identify topics of interest and overlaid these onto the skills, attitudes and concepts which were the cornerstones of his curriculum. The effort was well rewarded in course popularity, effective learning and high take up of C.D.T. courses at option time.

It can be worthwhile to use questionnaires at other times of the year e.g. at the end of courses or projects to determine pupil reaction. Confidentiality can be arranged by omitting names from papers.

Group discussions can also be usefully focused on review topics but this needs to be skilfully steered to minimise the distortion that peer group pressure can force onto pupil views.

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