The management of pre-vocational education courses

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The Management of Pre-Vocational Education Courses

Thesis Presented for the Award of the Degree of

Master of Arts in Education

University of Durham

November 1988

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Acknowledgements

I would like to acknowledge the assistance given to me by Mr S.G.C. Stoker of Durham University who has been my supervisor for the study. I should also like to thank Peter Frankland for his support and guidance, his reading of the first draft and, particularly, for his assistance with the statistical analyisis of the data and with the original design of the questionnaire.

Finally, I should like to acknowledge the assistance of those teachers and colleagues who piloted the original questionnaire, for their suggestions from which several changes were made and also those who took the time and effort to complete the final version.

CONTENTS

Overview

Much is presently being debated about, and is happening with, pre-vocational education. The debate revolves around the demise of heavy industry, the increase in unemployment and the changes in the apprenticeship system that has, for many years, been the mainstay of vocational education and training. Associated with this is the argument that, for too long, schools have concentrated upon more academic clients at the expense of the "less able". These factors have resulted in an upsurge of new courses in FE and in the introduction of pre-vocational education courses into schools and colleges.

The aims of the study are to elicit whether:

(a) Pre-vocational courses (e.g. YTS, CPVE, TVEI and BTEC 1st Award) affect the style of management in educational establishments;

(b) the management structure of the institution (matrix or departmental) has an effect upon the nature of the delivery of pre-vocational courses;

(c) the style of management (autocratic, democratic and laissez - faire) in terms of how courses are introduced

and how decisions are communicated, affects the content and learning processes of pre-vocational courses.

An initial consideration is made of pre-vocational courses and their curricular issues, educational management styles and institutional management structures. From this consideration a questionnaire was designed (appendix 1) to elicit information from teachers of pre-vocational courses.

Results from the questionnaire were collated from 93 teachers who are employed in Schools, FE colleges, Tertiary colleges and Managing Agents. The results were subjected to SPSS-X computer analysis which gives category counts, percentages, and cross tabulations between questions (which include chi square computations) to assess the significance of the results.

It is found that:

(i) the type of pre-vocational course has no effect upon the style of management;

(ii) when an institution has a matrix management structure, pre-vocational courses are more likely to be offered in the manner in which they are intended as indicated by the amount of time that teachers spend on the elements;

(iii) the manner in which a pre-vocational course is introduced to teachers has little effect on the way that the curriculum framework is interpreted. However, when courses are introduced in a democratic manner, then there is a likelihood that more time will be spent on the important curriculum elements such as core skills and negotiation.

(iv) if course decisions are communicated in a laissez-faire manner, less time is likely to be spent upon important pre-vocational curriculum elements than if they are communicated in a democratic or autocratic manner.

The study also raises a number of questions including those relating to the types of staff development that teachers of pre-vocational education have undergone (if any) and how industry and commerce view both the outcomes and dynamics of pre-vocational education. Both of these aspects would be worthy of further study.

Chapter 1

Introduction

This study examines the management of pre-vocational courses. In doing this it is necessary to discuss the the types of course, their curriculum frameworks and their implications for successful operation, and, from these, to judge the issues that impinge upon the management processes.

Initially it was considered that pre-vocational education was initiated at the age of 16+, once pupils had left school. However, due to problems with, amongst others, employment, motivation and take-up of further education, the government has seen fit to introduce this type of education from the age of 14 through the Manpower Services Commission (MSC) and its schemes (now the Training Commission). Since the establishment of the original pre-vocational programmes around the beginning of the 1980's, many changes have occurred with respect to employment, education and training. YOP and UVP have been replaced by YTS; CPVE is available in both schools and colleges; TVEI, GCSE A/S levels and 14-16 pre-vocational programmes have been developed, and the whole structure of vocational qualifications has been reviewed. Significant unemployment for young people for the foreseeable future seems a distinct possibility; and new technology is changing many work roles.[1]

There are many different pre-vocational courses in existence but only four of them are specifically discussed in this study. These are TVEI, YTS, CPVE and BTEC First Awards. The reasons for the choice of these courses above the others (e.g. RSA, City and Guilds.) are that the four are those that are predominantly offered in the North-East of England where the study has taken place.

Since the early 1980's there has been growing acceptance of pre-vocational courses by both the education and training systems. There now exist new attitudes to the way in which our young people should be educated and trained so that they may more successfully make the transition from school to work. The acquisition and mastery of core (or basic) skills remains a key element of vocational preparation, but there has also emerged a greater acceptance of the necessity to construct programmes based on the individual needs of young people related to their personal development, self-evaluation and their ability to relate to local employment demands. Thus, counselling, guidance and experience in a work situation are now generally accepted as central elements of such programmes.

Indeed, vocational preparation programmes have become a vehicle for change for other educational programmes. Much emphasis has been placed upon, for instance, student-centred approaches and the provision of guided reflection on experiences. The focus of vocational preparation programmes leads to a number of changes in

content and emphasis in the design of the programme aims and the curriculum. Some of these changes are indicated in a checklist presented in "Planned Experience" [2] shown in Fig. 1 as a comparison between traditional and pre-vocational courses.

Traditional Programmes	Vocational Preparation Programmes
Specific vocational training	Preparation for broader vocational horizons
Orientation to market need	Orientation to trainee need
Ownership of the skills by the trainers or training establishment	Ownership of skills by trainees
The learning of skills	Learning how to learn
Skills training	Problem solving
Based on knowledge	Based on performance
Narrow range of experiences	Wide range of experiences
Working to a syllabus and/or company/centre needs	Negotiated learning agenda for each trainee
Theory/information-based learning	Experience-based learning
Didactic, non-participative	Learner-centred/participative
Isolated elements occurring in sequence	Linked, integrated elements forming a defined whole
Informal, unstructured counselling	Formal counselling support systems
Assessment as standards-checking	Assessment as counselling designs

Fig. 1 - Comparison betwen traditional and pre-vocational courses

The importance of this checklist as related to this study is that it embodies many of the changes that have taken place in the pre-vocational curriculum. It can be used as a checklist to consider if a particular programme "fits" the ideals of what is intended as pre-vocational; it can provide a list of aims for institutions and work-places for their particular programmes. In terms of management, it provides a necessary focus for changes to take place. The intention of this study is to consider whether these aims are taking place and to attempt to evaluate reasons if they are not. It is evident from the checklist that, as stated by FEU [5]:

> *"Vocational Preparation involves a learning style and ethos; it is not a component that can be 'bolted-on' to existing delivery mechanisms....."*

This, then, involves a change in direction from the traditional programmes. The management of change is an aspect that education has had to contend with over the past few years and it is one which is still taking place. In order to both survive and be successful, the change requires adept management with the suggestion within the curriculum frameworks that course teams should play a much more important role in the running of courses. All of the partners in the schemes (students, teachers and industry) should interact in the operation of the programmes. Traditionally, the teacher has been an individualist; he has had a syllabus, his own student and his own examinations. With the

pre-vocational curriculum, this is no longer possible; teachers must interact with each other, their students and their industrial partners in order that the course is seen as a coherent whole. This change requires effective management if it is to be successful.

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Chapter 2

PRE-VOCATIONAL COURSES

2:1. The problems of Classification

In the main, pre-vocational courses are provided for post 16 year-olds (although TVEI is available from 14 years of age) with the intention of them being carried out in both schools and F.E. Colleges. Boyd-Barrett[4] describes three categories of courses for the 16-19 age group as indicated in Fig 2. These three

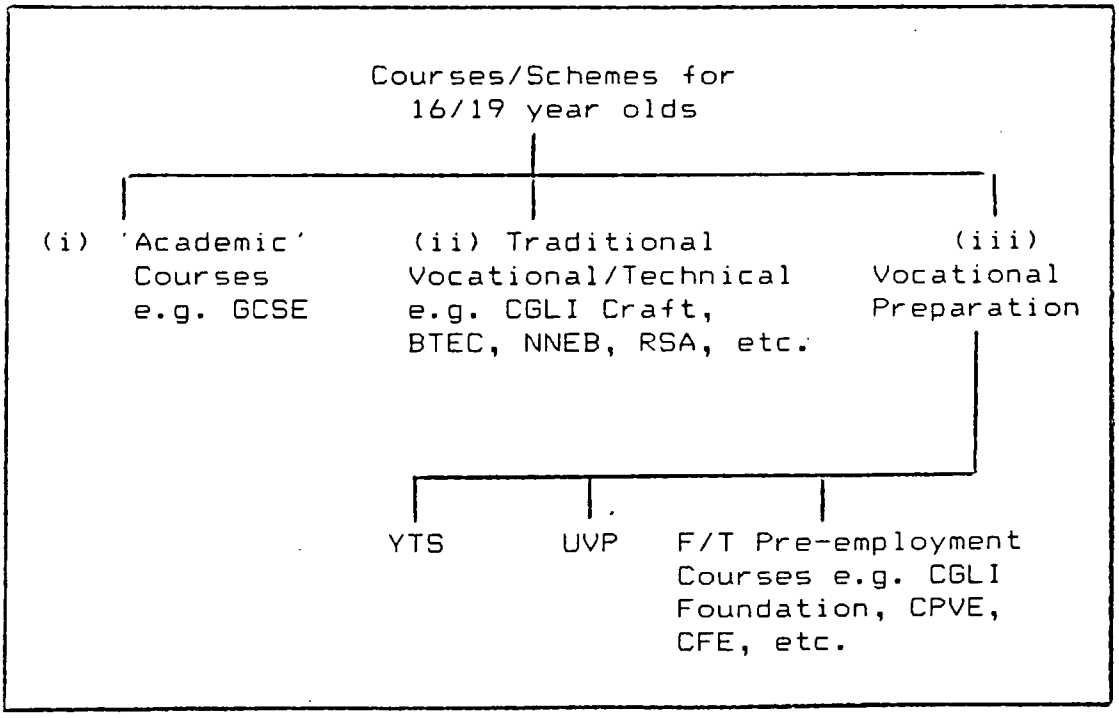

Fig. 2 - Education and Training Provision for 16/19 year olds

categories draw the distinction between the traditional (for schools) academic and the traditional (for FE) vocational courses and the new pre-vocational courses. The justification for his classification is the source of curricula in each case, namely:

(i) The syllabus of an academic subject is usually supplied by an external examining board and is determined to a large extent by the requirements of the next higher grade of academic course for which it normally acts as entry requirements. The syllabus aims to emphasise cognitive development.

(ii) The crucial influence on the curricula of traditional vocational courses, which are invariably provided by the vocational examining and validating bodies, are the claimed requirements of specific occupations, industries or professional associations, for which the students are being prepared or have already entered.

(iii) For Pre-Vocational (or, in Boyd-Barrett's terms, Vocational Preparation) schemes, neither of these sources are applicable. Students are not necessarily intending to proceed to further academic study, nor are they necessarily motivated to study academic subjects for their own sake. At the same time the curricula cannot necessarily be derived from a particular job due to:

(a) the uncertainty about the kind of employment that the students wish, or can, obtain;

(b) students do not feel ready to make a firm commitment to any specific training;

(c) there is a high probability that these young people will move, by choice or otherwise, in and out of a number of different jobs in the early part of their working life.

2:2. Pre-Vocational and Vocational Preparation Courses

This classification, however, is a little simplistic and it might be worthwhile to consider the distinction of what is called here Pre-Vocational courses and what Boyd-Barrett describes as Vocational Preparation courses. This distinction is shown on the spectrum of vocational courses in Fig. 3. The rationale for the

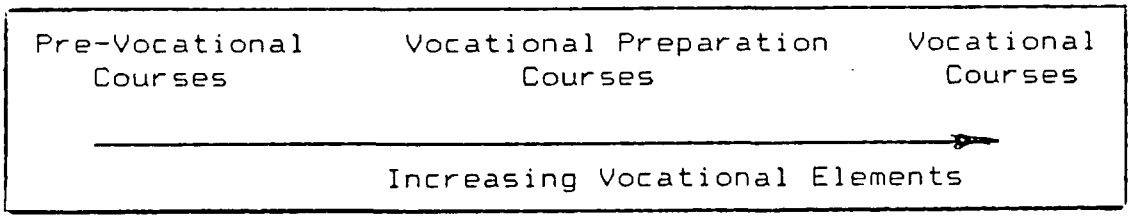

Fig 3 - Spectrum of Vocational Courses

spectrum is the increase in the vocational elements from the Pre-Vocational courses at one end, to the Vocational courses at the other. Vocational courses are provided for those who know what they wish to do (or for those who are already employed), whilst the Pre-Vocational course provide a certain amount of "Planned 'tasting' across a broad vocational area"[5]

Greater assistance with this distinction can be made through consideration of the provision of courses under each of the headings as shown in Fig 4. which has been adapted from Boyd

Barrett (op. cit). Although there are large differences in the

Pre-Vocational Courses	Vocational Preparation Courses	Vocational Courses
Certificate of Pre-Vocational Education. (CPVE) Technical and Vocational Education Initiative (TVEI) Certificate of Further Education. (CFE) Etc.	BTEC First Award Courses. Youth Training Scheme (YTS) Courses. Unified Vocational Preparation (UVP) Courses Etc.	BTEC National Certificates and Diplomas. CGLI Craft Courses. RSA Secretarial Courses. Nursery Nurse Examination Board Courses. Etc.

Fig 4 - Provision of Vocational Courses

vocational element of, say, a CPVE course compared with a YTS course, the distinction between the two types is not clear-cut. Indeed, within a CPVE course in the same institution and the same class, a course designed for one student might have a much greater vocational bias than it does for another student due, in part, to the individual's greater ability to know what he wants to do. However, in general, Pre-Vocational courses have less specific vocational bias than do Vocational Preparation courses.

This does not mean to say that young people should not be encouraged to use an interest in a particular job as a focus for their learning, but in the main the aim of Pre-Vocational and, to a lesser extent, Vocational Preparation courses must be the

development of the capabilities required to make a success of adult and working life in general. An example of such capabilities is given by the "common core" of these capabilities as suggested by FEU[6].

A further distinction can be made between the different types of course through their respective curricula as shown in Fig. 5.

Pre-Vocational Courses	Vocational Preparation Courses	Vocational Courses	Academic Courses
Curriculum negotiated	Curriculum negotiated	Curriculum defined by claimed job demands.	Curriculum defined by the demands of HE.
Integrated & co-ordinated components.	Training plan with some co-ordination	Partially integrated	Subject-based
Core Studies Voc Studies & planned work experience	Planned work experience + on-the-job training	Usually an objective based curriculum	Cognitive separate syllabus
Initial and progressive assessment	Continuous assessment	Continuous and end assessment	Mainly end examination, some cont. assessment
Record of Achievement & Core Cert.	Record of Achievement, Core cert. and voc. qual's.	Vocational qualifications	Subject Certification

Fig 5. - Major Curriculum Elements of Different Courses

This shows the major differences in the operation of the 4 types of courses. The pre-vocational courses are mainly institution-based with a negotiated curriculum from a framework produced by

the Joint (BTEC and CGLI) Board. The curriculum is co-ordinated through core and vocational areas and has integrated work experience associated with it. Assessment is through coursework resulting in a record of achievement plus certification of the core elements achieved. The vocational preparation courses also have a negotiated curriculum (although the YTS courses have a greater element of negotiation than the BTEC First Award - the latter only having negotiated assignment work).

2:3. Characteristics of Different Courses

Having looked at the classification of the different courses it is now necessary to consider four of them in greater detail. The choice of the four courses are those that are used in the survey and are those that are the most popular pre-vocational courses in the North-East region of England at the moment.

2:3:1 Certificate of Pre-Vocational Education

The Joint Board of Pre-Vocational Education was set up in May 1983 by the Business and Technician Education Council and the City and Guilds of London Institute at the request of the Secretaries of State for Education and Employment to establish a system of pre-vocational education on a national basis and to have new schemes available for introduction into schools and colleges from September 1985. Owing to this deadline the Joint Board concentrated on meeting the needs of 16 year-olds who would

benefit from a further year of full-time education. It was the intention that the programme should not be purely academic and not be purely vocational but should assist the young people to prepare for adult work and life.

The aims of the programme that was produced were to:

- form vocational interests through planned "tasting" across a broad area, or to allow the more concentrated exploration of possibilities within a narrower sector;
- develop competences applicable to jobs and to adult life;
- extend general education.

The framework that was produced is shown diagrammatically in Fig. 6 and is based on Joint Board publications[7]. It should be noted that the word framework is used advisedly as the intention of the course is that the curriculum will be negotiated between tutors and students within this framework so that it is appropriate to individual students.

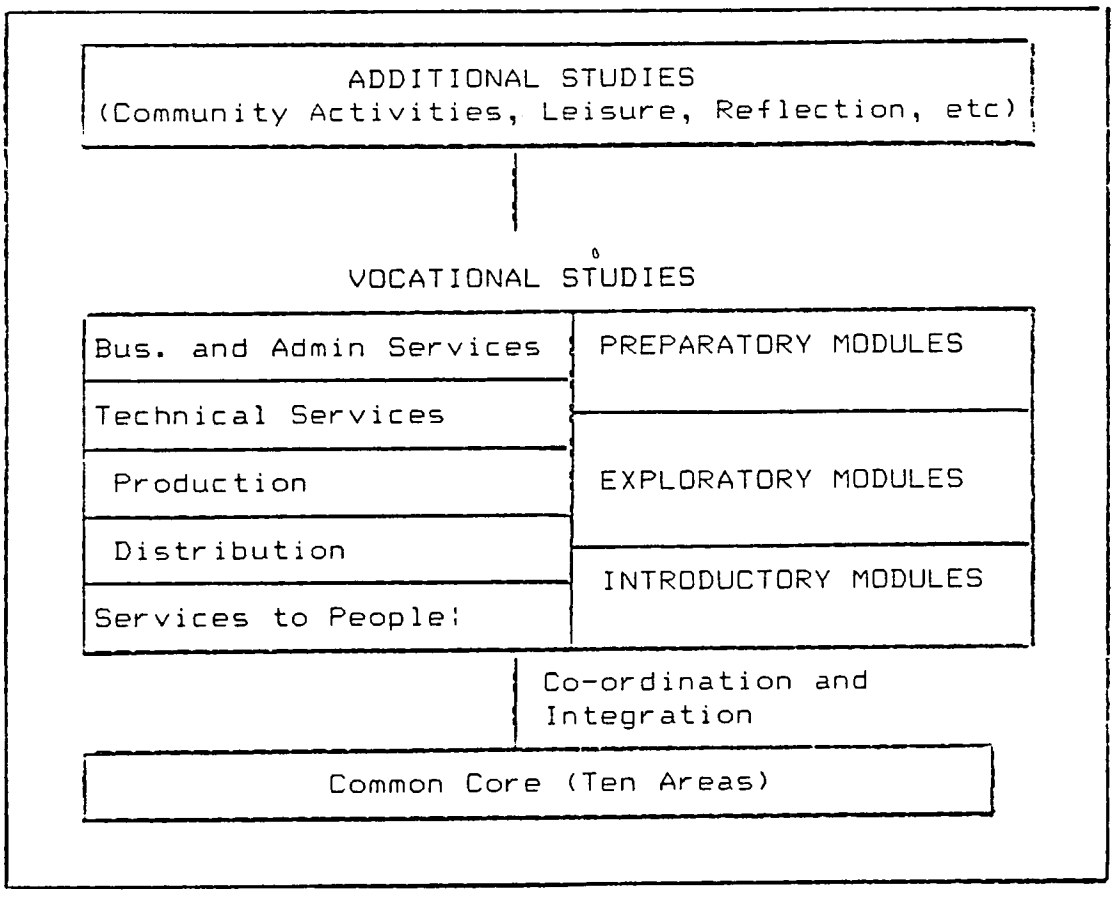

Fig. 6 - CPVE Elements

The main elements of the CPVE curriculum are the ten core areas and their integration and co-ordination with the vocational studies. It is not the intention that each of the core areas should be separately "taught" (although some institutions have this as a time-tabled subject!) but that they should be learned through the completion of the vocational studies. The vocational studies are sub-divided into five vocational areas; each area has modules at different levels (introductory, exploratory and preparatory). Students are required to complete four modules at least two of which must be the exploratory levels. Process objectives are developed for each of the modules in each of the vocational areas. Completion of the vocational studies means

that students can choose modules from either one vocational area or from a range (depending upon availability in the institution) of areas.

The model given in "Experience, Reflection, Learning"[8] is the preferred learning mode for the course. As the courses are institution based, many of the learning experiences have to be simulated work experiences in order to achieve the objectives of the vocational studies modules.

The standards of performance of individual students are described in terms of satisfactory attainment of the aims and objectives for the CPVE. Assessments are available for all areas of the core at different levels in order to determine the entry levels as well as progression throughout the course as well as a set of process objectives for each of the vocational study modules. Certification is through a record of achievement of skills demonstrated, together with a statement of the context within which the skills were demonstrated.

2:3:2 Technical Vocational Education Initiative

Among much furore, TVEI was hurriedly introduced into schools in 1983, following an announcement in Parliament in 1982. Parliament asked the chairman of the Manpower Services Commission, together with the Secretaries of State, to develop a pilot scheme. Initially fourteen LEA's were chosen to take part

and, by 1985, participation in TVEI had increased to include the majority of LEA's.

Following publication of three significant White Papers: Training for Jobs[9]; Better Schools[10] and Working Together[11], it is evident that TVEI can no longer be viewed simply as a pilot scheme with a short life expectancy. The nationwide replication of TVEI announced in 1986, with a £900,000,000 budget over 10 years, is being promoted as a success despite the paucity of evaluation results[12]. The implications of the TVEI extension are that TVEI and its philosophy will become part of the national system of education and, as a consequence, The Training Agency will have a major stake in the compulsory sector of education to complement its already large colonization of the post-16 education and training through Work Related Non-Advanced Further Education (WRNAFE) and YTS.

Gleeson [13] suggests that TVEI contains certain unique features which have important implications for secondary education. At the policy level, he argues, it represents a major initiative in restructuring the education and training experiences of 14-18 year olds and re-organizing the environment in which learning occurs. The general view is that within TVEI there is the potential for curriculum innovation, both in terms of teaching style and a better deal for many young people in breaking away, at least partially, from the traditional academic experiences.

The intention of the initiative is to stimulate the provision of technical and vocational education for young people. It is aimed at 14 to 18 year olds from a wide ability range. Unlike other pre-vocational courses, it has no closely defined core of skills, aims and objectives. This is to allow L.E.A's to develop their own curricula. But each programme, as suggested by DES/DOE[14] must fulfil the following criteria:

- equal opportunities for both sexes;
- a four year curriculum designed to prepare young people for employment in a rapidly changing society;
- general and technical/vocational elements throughout the course;
- the course should develop the problem solving skills and initiative of the students;
- the technical/vocational elements should be related to job opportunities both within and outside the local area;
- planned work experience from the age of 15;
- links with further training/education; and
- regular written assessment and good careers counselling.

The MSC, as reported by Pickard[15], is keen to attract high fliers as well as less academic students, so, in many schemes, there is provision for pupils to take GCSE and A levels. This plan, however, is being rather undermined as AS levels are introduced in greater numbers as these probably leave too little time for the technical/vocational side of the programme.

Several problems have been raised with the introduction of TVEI. An important feature is that it represents a four-year package beginning at 14+ and progressing beyond the compulsory leaving age to 18. Moreover, a major objective is to establish curricular coherence and progression towards nationally recognised qualifications backed by coherent programmes and inter-institutional provision. Yet, according to Gleeson and Smith[16], such co-operation remains patchy and uneven, rendering TVEI a 14-16 school-based provision. It is suggested that the issue of priority and status afforded to TVEI by the post-16 sector is an important factor in the 16-18 debate. In examining the reasons behind the neglect of the 16-18 phase, Gleeson and Smith outline some of the policy issues which need to be overcome if progression is to take place. These include the arguments of central control where the government has effected, in a direct way, changes in the curricula priorities of secondary schools and FE. Another is a return to tripartism inherent in TVEI. Within schools there is no evidence that this is taking place; however, in the post-16 phase Ransom, Taylor and Brighouse[17] argue that:

> *"What has almost been eliminated from secondary education is now re-appearing at tertiary level with Advanced levels forming a more entrenched grammar stream, TVEI ..... indicating a technical track, with YTS comprising the new tertiary modern sector."*

This, indeed, might be one reason that TVEI and YTS are being kept separate by MSC, knowing that the traditionalists within education will fight to preserve the third route (the A level route) outside TVEI.

2:3:3 Youth Training Scheme

Following consultations on its "New Training Initiative"[18], the MSC published far-reaching decisions and recommendations about the future of Brisish industrial training in 1981. Simultaneously with MSC's agenda for action[19], the Government White Paper[20], "A New Training Initiative: a programme for action", was published reaffirming the three major objectives of the New Training Initiative (NTI) and stressing the need for urgent action. Of the three objectives of NTI, the two important ones for pre-vocational education are:

(i) *"we must develop skill training including apprenticeship in such a way as to enable young people entering at different ages and with different educational attainments to acquire agreed standards of skill appropriate to the jobs available and to provide them with a basis for progression through further learning;"*

(ii) *"we must move towards a position where all young people under the age of 18 have the opportunity either of continuing full time education or of entering a period of planned work experience combined with work related training and education."*

To achieve these aims the MSC provides a design framework for managing agents consisting of "inputs" and "outcomes". These are the basis of the Youth Training Scheme which was introduced in April 1983 providing a year's programme of on-and off-the-job training and work experience for young people. From April 1986 the programmes were extended to cover two years so that young people might be more successfully involved in vocational qualifications. The inputs and outcomes are shown in tabular form in Fig. 7.

INPUTS	OUTCOMES
- Planned work Experience on the job. - Off-the-job Training/ Education. - Induction. - Initial Assessment. - Participative Learning. - Guidance/Reviewing.	- Competences in a job or a range of occupational skills. - Competence in a range of transferable core skills. - Ability to transfer skills and knowledge to new situations. - Personal Effectiveness.

Fig. 7 - YTS Inputs and Outcomes

It will be realised that YTS schemes are run by the Training Agency (formerly The Training Commission and Manpower Services

Commission - MSC) and that the DES has little or no effect in the operation of the programmes. The three types of programme initially operated were Mode A, industry based; Mode B1, community based; and mode B2, based in FE. From the outset, only a small percentage of trainees were allowed to be based in FE. The whole intention of the programme was that it should involve industry more in the training of its workforce, and provide training for unemployed school leavers. In order to operate the programmes "Managing Agents" have been appointed who co-ordinate and generally oversee the programme for the trainees and, at the same time, are responsible to MSC for the running of the programmes within the guidelines set by MSC in the Government White Paper "Education and Training for Young People"[21] and subsequently revised in-line with NCVQ requirements in "Training for Skills"[22].

FEU[23] show these guidelines diagrammatically in Fig. 8.

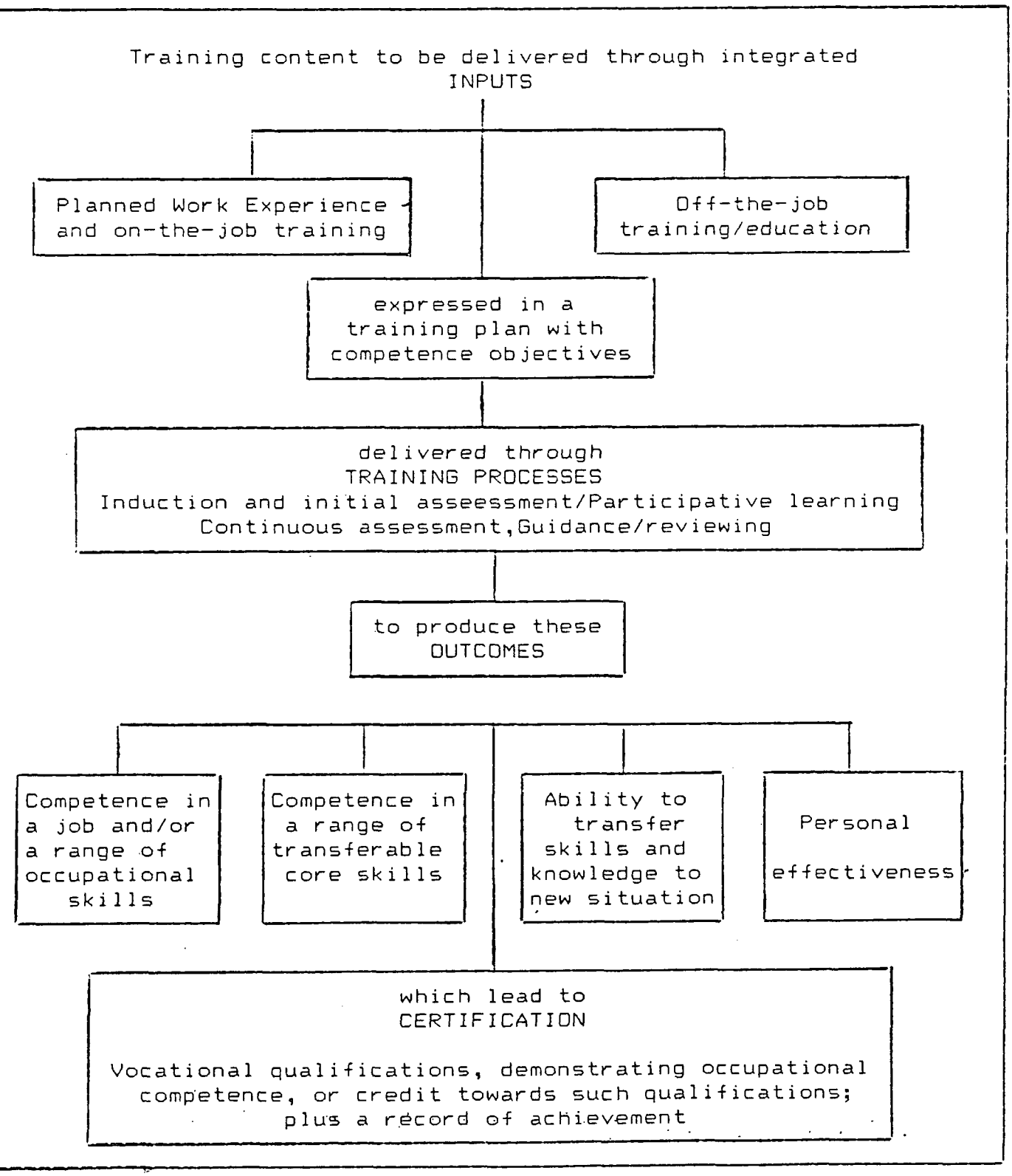

Fig 8 - The YTS Design Framework

The MSC recommends that Managing Agents should set up a team representative of all who are directly involved in training individual trainees undergoing the same programme (on-the-job, off-the-job, planned work experience) so that all aspects of the programme are properly integrated and that unnecessary duplication, repetition and omissions are avoided. The team should be kept small and should meet at regular intervals to discuss problems and develop the programme. The FEU[24] consider that the interposing of Managing Agents between the FE college and the work experience providers has lengthened the communication chain and has caused difficulties.

The inputs of the two-year YTS programme are the planned work experience integrated with 13 weeks per year of off-the-job training. The advantages of planned work experience are cited[25] as; more effective motivation, involving young people in adult life situations, a better learning environment for some skills training and greater relevance. This relevance is achieved through relating the initial skills acquisition and off-the-job training/education to the productive pressures and teamwork often encountered in the work situation. The disadvantages include the problem that the work place is not always conducive to learning especially if trained and experienced trainers or instructors are not available. The off-the-job element of the input should provide trainees with opportunities to achieve a range of core skills. In addition, the two-year programme

should provide a broad base of foundation training leading to more specific vocational training in the second year. All trainees should seek to acquire a vocational qualification or a credit towards such a qualification which will be available in the off-the-job element.

The inputs are to be managed through participative learning. This was a new element introduced in 1985 because MSC felt that some reference should be made to the style of learning in YTS schemes. This requires learning by doing with student-centred programmes designed and delivered with the needs of particular students in mind. This involves tutors designing assignments that involve trainees in some form of activity which is seen as relevant to them but at the same time develops their broader understanding.

It will be noticed from Fig. 8 that the inputs are to be expressed in terms of competence objectives. This is in-line with the requirements of NCVQ[26] where vocational qualifications are required to define competences relevant to work and intended to facilitate entry into, or progression in, employment, further education and training. Thus, as would be expected, the outcomes are expressed in terms of competences.

MSC criteria requires that all Managing Agents should provide occupationally based training that avoids narrow specialisms and forms the basis for subsequent and more specialised training.

Competence in a job or a range of occupational skills is the main base within which the other three outcomes (core skills, transfer and personal effectiveness) can be developed. The core skills (MSC defines these as "those abilities commonly found in a wide range of occupations, in a variety of work settings, and at many different levels") are given in five areas; number, communication, problem solving, practical skills, and computer literacy. The main problem with these, as quoted by MSC[27], is that computer literacy is not usually covered in the on-the-job situation and the coverage off-the-job is often not appropriate to what the trainee might realistically be expected to do in the normal work situation. The same MSC report also discovered that the core areas were not being included in any planned way, and that there was little attempt to enrich the core areas by the use of work-based projects. An important aspect that will be discussed later is that core areas are not linear in the sense that they need to be learned in some sequential order; they can be achieved at any time and in any order.

The third outcome is the ability to transfer skills and knowledge to new situations. In terms of Bloom's Taxonomy of Educational Objectives[28], this ability is called application and is recognised as a high level ability. It requires both knowledge and understanding for it to take place.

The final outcome is personal effectiveness. In the MSC

Record of Achievement Booklet prepared for the revised YTS design framework in 1984/85, this is described as "showing initiative, accepting responsibility, handling relationships in a constructive way, and becoming mature and independent. An MSC review[29] described these as "the most important elements for young people and their prospective employers, but ways of assessing these outcomes need to be found".

2:3:4 BTEC First Award Courses

BTEC First Award is not always considered a pre-vocational course. It is included here because of its general nature and due to the fact that it leads to a range of subject specialisms.

BTEC qualifications were substantially revised in September 1987 as a result a policy statement[30] and a subsequent number of circulars in 1986 starting with Circular 15 giving the overall framework[31]. Previously, courses that had been validated by BTEC had a unit design based upon product outcomes stated in terms of general and specific objectives. The main difference in the new format was that of the amount of integration between the units which was to be achieved, in the main through integrative assignments and the achievement of core skills. One of the problems with the old scheme, as identified in an evaluation of Technician Education Council's programmes[32], was that the assessment procedures that were used (phase tests) and "over-full" syllabuses led to too much teacher-controlled

learning. Thus, through the specification of core skills and integrative approaches, it was anticipated that student-centred investigation/design work would form a substantial part of the programmes. The diagram shown in Fig. 9, taken from the Engineering Guidelines[33], shows how this integration can take place.

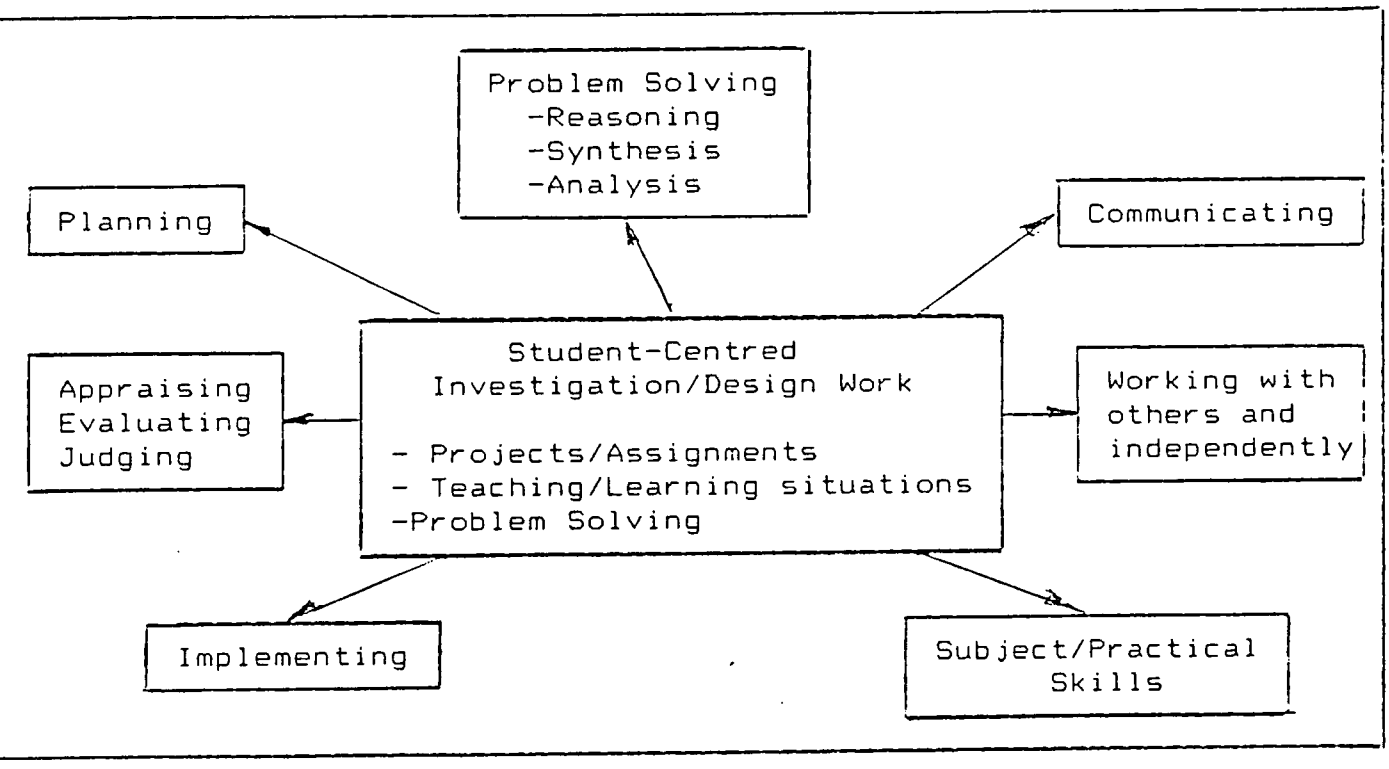

Fig. 9 - BTEC Core Skills

At the centre of the diagram is the learning approach and, leading into this, are the core skills that are required.

In collaboration with the change in learning approach was also a

change in curriculum specification. Instead of product general and specific objectives being the main vehicle, there was a change to process objectives. This, not only placed the emphasis upon the process but also indicated that there were different ways of achieving the same goals. The new terms used are:

Principal Objectives

- *giving the principal learning outcomes, and*

Indicative Objectives

- *indicating that objectives at a more detailed level should be treated as indicative and not prescriptive,*

or,

Indicative Content

- *indicating the detailed content of a unit without employing objectives.*

BTEC show this diagrammatically in its guidelines to course and unit design[34] (Fig. 10) giving the two alternatives.

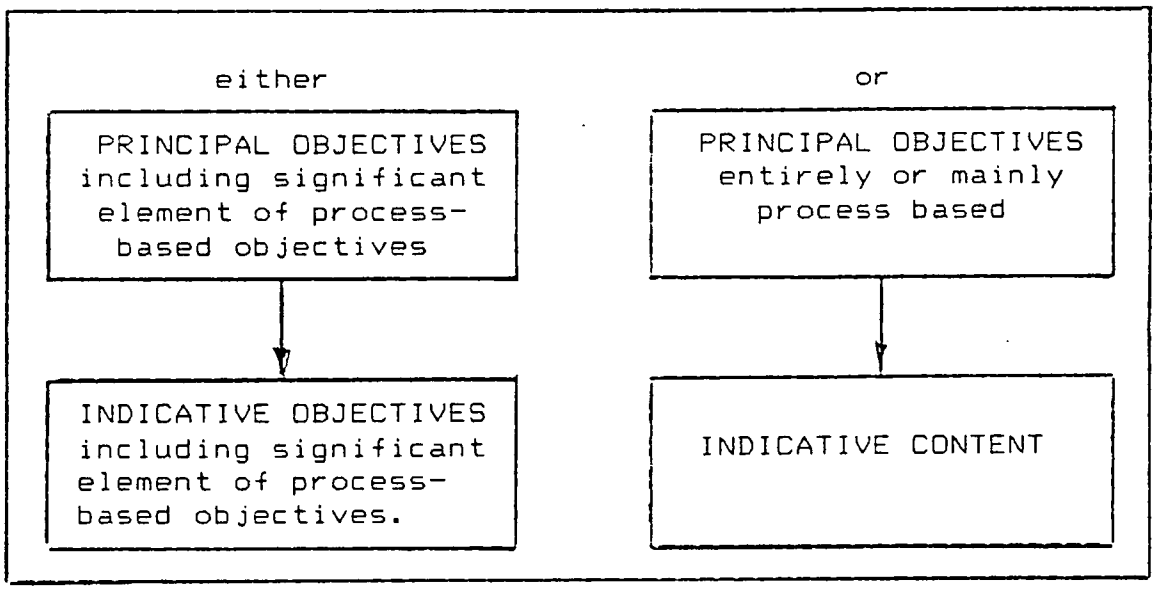

Fig 10 - BTEC Curriculum Specification

It is further suggested by BTEC that process-based objectives are more likely than knowledge-based objectives to encourage the development and assessment of vocationally relevant competences.

Another effect of the changes was to make the courses as vocationally-relevant as possible (recognising that their operation would be college based). Thus, the assessment strategies are required to emphasise, wherever possible, vocationally-relevant applications .

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Chapter 3

PRE-VOCATIONAL CURRICULUM ISSUES

The relevant aspects of the different pre-vocational courses have already been described in Chapter 2. It can be seen from this description that these "new-type" courses have certain similarities. e.g. they all have an emphasis upon core and transferable skills, have aspects of negotiation in their curriculum, and rely upon co-ordination with work-based learning, and records of achievement. Indeed, Fig. 5 (page 10) highlighted some of these curriculum elements in terms of their applications in the different courses. It is the intention here to look more deeply at these curriculum elements so that, within the results of the study, the reasons if and why differences occur might be highlighted.

3:1. Core Skills

The growth of pre-vocational courses in further education and, increasingly, in schools, emphasises the need both to continue the general education of young people and to stress the central importance of their basic skills and their personal and social development: they have occupational relevance without relating closely to a specific job. FEU's report "A Basis for Choice"[35] outlined the type of curriculum framework which could provide a structure for such courses. It was suggested that there should be:

(i) a common core of studies (60%)

(ii) studies with a vocational bias (20%)

(iii) occupationally specific studies and experience (20%)

The common core of studies was intended to reflect the general education to which all young people should be entitled. In "A Basis for Choice"[35] it was expressed in terms of aims and objectives which intentionally blurred the boundaries between subjects, and referred to personal qualities, skills, attitudes and practical knowledge which often go unmentioned in the formal timetable of school or college. The reason for this was that many of the competences that young people need for survival as adults in a world which is increasingly uncertain and ill-defined, owe little to the content of traditional subjects. They rely on the more generalised process skills of analysis and problem solving, and personal qualities such as resilience, and responsibility, and the ability to transfer knowledge and skills from the context in which they are learned to new problems and situations. There is evidence to show that many students have difficulty in transferring information and skills from one situation to another (Assessment of Performance Unit[36]).

The ABC Common Core consists of the following 12 aims. Each of the aims is expanded, in the ABC document, with objectives to indicate how each might be achieved.

1. To bring about an informed perspective as to the role and status of a young person in an adult society and the world of work.

2. To provide a basis from which a young person can make an informed and realistic decision with respect to his or her immediate future.

3. To bring about continuing development of physical and manipulative skills in both leisure and vocational contexts and an appreciation of those skills in others.

4. To bring about an ability to develop satisfactory personal relationships with others.

5. To provide a basis on which the young person acquires a set of moral values applicable to contemporary society.

6. To bring about a level of achievement in literacy, numeracy and graphicacy.

7. To bring about a competence in a variety of study skills.

8. To encourage the capacity to approach various kinds

of problems methodically and effectively, and to plan and evaluate courses of action.

9. *To bring about sufficient political and economic literacy to understand the social environment and to participate in it.*

10. *An appreciation of the physical and technological environments and the relationship between these and the needs of man in general, and working life in particular.*

11. *To bring about a development of the coping skills necessary to promote self-sufficiency in the young people.*

12. *To bring about a flexibility of attitude and a willingness to learn, sufficient to manage future changes in technology and career.*

From these aims it can be seen that there is a great emphasis upon, what is traditionally called, the affective domain; upon the necessary attitudes that young people need to make a success of their adult life. There is little emphasis upon traditional subjects with the nearest coming in terms of aim 6 - literacy and numeracy.

Developments such as these constitute quite a radical change in the curriculum of adolescents and, increasingly, the common core as developed in ABC has been adopted by other examining and validating bodies i.e. City and Guilds and BTEC in CPVE; BTEC in the first award; and The Training Agency in YTS courses. Such changes have provided a radical challenge for the management of pre-vocational courses. FEU[37] in their response to the 17+ qualification stated:

> *"For teachers and managers it is the transition of single subject syllabuses into integrated courses - via cross-disciplinary learning, counselling, continuous assessment and an occupationally relevant approach."*

Each of the pre-vocational courses relevant to this study have taken the ABC core aims and used them to a lesser or greater extent. All of them have a core element and all of them are slightly different.

The CPVE Core is given by the Joint Board[38] in their Part B Booklet. It is given as a list of aims and objectives which reflect the general education to which all young people should have access and which can easily be matched to a range of achievements and experiences in a variety of contexts. It is suggested that students should address all of the aims and that the objectives might be used as a checklist in the planning and

evaluation of programmes. In addition, the CPVE Certificate records attainment in all of the core areas.

The CPVE framework identifies ten areas. These are:

- Personal and Career Development
- Industrial, Social and Environmental Studies
- Communication
- Social Skills
- Numeracy
- Science and Technology
- Information Technology
- Creative Development
- Practical Skills
- Problem Solving.

The CPVE framework recognises that the achievement of the core aims and objectives will be met in a variety of ways, but specifically identifies vocational studies as a focus for the development and application of the core. Core and vocational studies must be integrated for a minimum of 20% of the total course time, while core and vocational studies must occupy a minimum of 75% of the course time.

It is evident from the aims and objectives of the core areas that their achievement will best come through activity-based learning. Work experience is an essential component of CPVE providing

opportunities to develop and apply core competences and to reflect and learn from a real work situation. A system of guidance and counselling related to formative assessment and profiling enables students to review their progress with tutors and participate in planning their own programmes and learning.

The YTS core comprises four areas: number, communication, problem solving and practical skills. Within these 4 areas, MSC[39] identified, through a "Quick Reference List", 103 core skills classified under 14 headings. Additional core skills in computing and information technology are also available.

Scheme organisers are requested to bear these core skills in mind when devising "competence objectives". The achievement of these objectives over the 2 year programme will require trainees to demonstrate competences in all four outcomes including competence in a range of transferable core skills.

The TVEI Core is not overtly stipulated like that of CPVE and YTS, but, as suggested by FEU[40], *"an implied and intended core can be extracted from those aims and criteria which contain pointers to curriculum design".* The article goes on to articulate these particular aims and characteristics under headings of (a) curriculum content - e.g. vocational relevance; practical transferability; problem solving; planned work experience; etc.,

and (b) curriculum framework - e.g. counselling, guidance and assessment; records of achievement; integration; etc. Thus, it would be difficult to see a TVEI programme being designed that does not contain all of the characteristics of a core.

BTEC use the terms "Common Skills and Core Themes" for their core areas. They define common skills[41] as "those skills which enable students to apply knowledge and understanding to real situations, to cope with problems of an unpredictable nature and to acquire new knowledge." These are identified under 5 categories. i.e.

- *self-development skills*
- *communicating and working with others*
- *problem tackling, decision making and investigating*
- *information, quantitative and numerical skills*
- *practical skills.*

BTEC expect that course teams should produce statements of common skills that take full account of the five major skill categories and are related to the needs of the vocational area. However, further guidance is given through the provision of Specimen Skill Statements given in an appendix to the guideline.

The purpose of core themes is to broaden the relevance of courses and to enrich the assignments in which students develop

common skills. They do not constitute subject matter but link work across the course as a whole. Course guidelines identify a number of themes that relate, for example, to particular jobs and vocationally relevant cross-disciplinary studies, etc.

BTEC suggests that the development of common skills and core themes depends on the whole course team being involved in setting up and implementing appropriate curriculum strategies. They require a programme of integrative assignments and project work to enhance the development of common skills and this must be allocated a time equivalent to a unit value of at least 1.0 (60 - 90 hours) in each year of the course. In addition an assessment grade is awarded to each student for work in the programme of integrative assignments.

Thus, one of the many changes that have occurred with the advent of pre-vocational courses, has been the provision of a core for ALL of these courses. The ABC core aims and objectives provided a starting point and a guide for the core elements of the pre-vocational courses. Even TVEI has an implicit core, but the curriculum frameworks of all of the others make the core explicit. The core is at the base of the courses and it is in this way that they become a preparation for life. Thus, the core embodies aspects that prepare young people for both subject content and the social aspects that are required for work. It could be argued that the core provides the curriculum for the continuation of general education as well as the introduction to

the skills that will be required for work. As the cores of all of the courses have this as their main aim, it is not surprising that there are similarities between them.

It is, of course, not intended that the core is a separate entity. It is important that the core is, at least partially if not wholly, integrated with the other studies. This places particular constraints upon teachers who have traditionally not considered, for instance, communication, as part of their teaching remit. With integration there is an implication that ALL teachers are teachers of the core elements. Further, it is necessary that all teachers assess the core elements and provide feedback to students and trainees of their performances in these elements.

3:2. Experiential and Work-based Learning

To implement the pre-vocational curriculum as given in the various frameworks, teachers need to master specific skills and, possibly, to adopt different teaching styles and attitudes. Many writers[42,43] have stressed the importance of experiences, and the planned reflection on the experiences, in learning. The curriculum of pre-vocational courses are constantly encouraging this through the use of student-centred approaches and planned work experience.

The use of experiential and work-based learning implies the need for integration of the curriculum elements. There are two main ways in which this integration can take place:

(a) integration of occupational skills with core skills

(b) the integration of off-the-job training with learning in the workplace.

FEU[44] in their booklet "Converting Working into Learning" give a diagram representing the integrated curriculum. This was specifically for a YTS programme. An adaptation of this diagram is shown in Fig. 11 below using terms specific to this study (e.g. core skills for basic skills). This adaptation makes the diagram applicable to all of the pre-vocational courses discussed in this study.

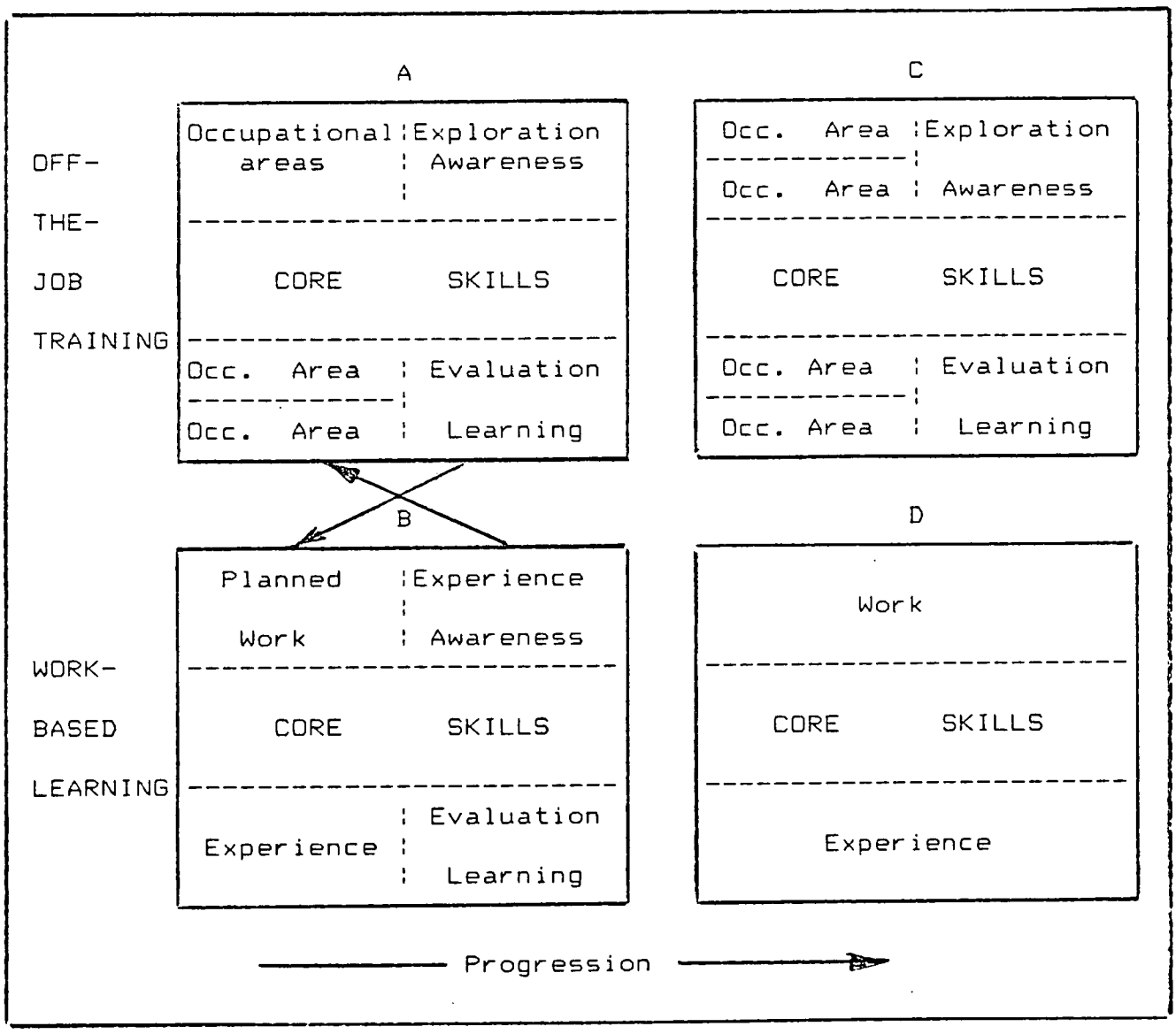

Fig. 11 - The Integrated Curriculum

The main features of the diagram are:

(i) The top and bottom sections within the four boxes correspond to the phases of training and planned work-experience in the programme.

(ii) Box "A" is designed to show the structure of training within the first period of off-the-job training. The left side is

divided into sections to show the possibility of training in one or several different occupational areas. The right hand side shows the phases necessary for progression; exploration takes place during the initial weeks where the trainee has opportunity to sample a number of occupational areas before deciding upon one. The centre of the box shows the core skills, placed in this position to indicate their integration with specific occupational skills. The presence of "awareness" in a box indicates the importance of both profiling and counselling to make students AWARE of their achievements.

(iii) In box "B", work-based learning, core skills retain their central position showing their importance during planned work experience. The left hand side of the box shows the work experience itself whilst the right hand side shows experience itself with the awareness again indicating profiling and counselling.

(iv) Boxes "C" and "D" indicate further periods of off-the-job and work-based learning.

(v) The lines and arrows linking boxes "A" and "B" indicate the connections that the individual student should make between the off-the-job training and the work-based learning. This is the basis of the ideas embodied within the FEU suggestions in "Experience, Reflection, Learning" (op. cit.)

where the importance of providing periods of reflection upon experiences is provided.

The diagram gives an indication of how experiential and work-based learning can be accommodated within a pre-vocational programme. It does, of course, present problems to teachers in its operation. It makes the premises that:

(a) both the off-the-job teacher and the work-based supervisor are able and willing to operate as a team to the benefit of student so that supervisors progress core skills and teachers use the tasks completed on-the-job, and

(b) that all of the off-the-job teachers are able and willing to operate as a team to integrate the core and occupational skills.

FEU[44] (op. cit) suggest that counsellors have a central role to play in ensuring that the bridge between teachers and supervisors takes place. Fig. 12 shows the centrality of this role.

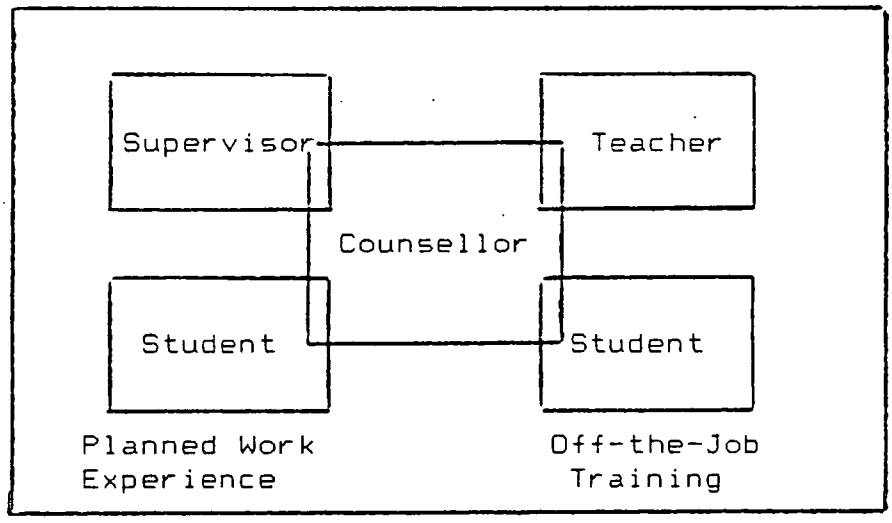

Fig.12 - Central Role of Counsellor in Curriculum Integration

It is suggested in the document that the counsellor role is *"essential to the negotiation of planned work experience and the process of integration."* Unfortunately this role, in the North East of England, is not always available and certainly not in the capacity suggested by FEU. It is invariably left to the teacher to complete any integration between the off-the-job and work-based institutions, especially with TVEI, CPVE and BTEC programmes where work placement is given less importance than it is by MSC in YTS programmes. The unfortunate result of this is that teachers do not have, of necessity, the trained skills that the counsellor possesses in terms of liaison, matching the student's occupational interests, personality and capacity for placement.

3:3. Negotiation

A further aspect of integration is that of negotiation. A Programme for Action[45] identified three types of negotiation when discussing YTS programmes. These are:

- Management Negotiation concerned mainly with external relationships between co-ordinators, managing agents and others to ensure joining planning and practice;

- Organisational Negotiation mainly concerning an effective internal communication and organisational structure with defined roles to monitor control and evaluate the delivery of the off-the-job element;

- Supportive Negotiation which is concerned with the negotiation of learning opportunities with students.

Without intending to diminish the importance of either management or organisational negotiation (they have been discussed in brief above), it is supportive negotiation which is of concern here.

It is the curriculum intention in all pre-vocational programmes that they should involve the student in a certain amount of negotiation of the curriculum so that the content is applicable to the needs of individuals with its supposed increase in motivation. The curriculum frameworks themselves are not

negotiable but within these there is opportunity for individual learning assignments and the resources and methods with which students approach them, may well be negotiable.

This concept of negotiation raises immense difficulties for both students and teachers. On the one hand the place of negotiation within the curriculum frameworks is not clearly defined and teachers are not familiar with the concept; they are accustomed to having specific curricula to follow. On the other hand students are anxious to meet the expectations of the teachers, without the added complication of negotiating aspects of these expectations or targets. FEU[46] suggest that, initially, YTS programmes have *"so far generally failed to involve the trainee. A large number of YTS schemes surveyed did not take account of the trainees ability and aspirations."* It is anticipated that "successful" negotiation can take place when there is planned assignment work (like in the BTEC framework) and open-ended assignments (as in CPVE vocational modules - particularly exploratory and preparatory modules).

FEU[47] make the following suggestions for strategies which aid negotiation:

- *giving students practice/confidence by consistently negotiating small issues, e.g. alternative learning assignments;*

- *simulating negotiating situations;*

- *expecting students and teachers to provide evidence for achievement at reviews of progress;*

- *following students' estimations of their own current achievements for the purpose of planning agenda, even if they seem to be over/under estimating themselves;*

- *working to contracts in which both student and teacher agree:*
    - *the starting point*
    - *where they are aiming*
    - *who will do what by when;*

- *both tutor and student being clear about where the limits to negotiation (e.g. college/school rules) lie.*

Contract learning certainly has much to commend it in that both parties to the contract place, in writing, their expectations. This has a clear place in assignment work and can be a useful addition to this type of learning.

It is suggested that the main limits to negotiation should include the curriculum frameworks. In all of the pre-vocational courses, aims and objectives have to be adhered to and this is a

limiting factor both in assignment work and in negotiation.

Negotiation requires a shared understanding of circumstances, constraints and alternatives and this, in turn, demands information and explanation. It also requires a pooling of all available ideas and experience, not just the teacher's. One of the strongest reasons for mutually agreed learning agenda, targets, profiles and contracts is that the discussion and explanation that accompany them, substantially increase the understanding and commitment of both students and teachers.

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Chapter 4

MANAGEMENT STYLES

4:1. What is Management?

Although it would be convenient, it is difficult to begin with a definition of "management". In one sense all teachers are managers - they manage students, the learning process and resources. Management is a flexible concept and it sometimes helps to give it such a broad meaning. The difficulty with the definition is that different writers give different meanings to the word. Koontz[48] states:

> *"Management has far from a standard meaning, although most people agree that it at least involves getting things done through and with people."*

The reason for the problem of a definition of management is that much of the theory is related to action with little research completed on the theoretical underpinning. Management research has been completed as a practice in a variety of contexts and theory from many different origins has been brought together for the purpose of explaining, informing and guiding the practice of management.

Sears[49] has written: "In common usage, the term administration is

roughly synonymous with that of management. Besides referring to the process or activity of managing people and materials, the term is regularly used to designate the person or persons in charge of the activity." The definitional problem here largely concerns the terms management and administration. This problem will be discussed in more detail later. Suffice, at the moment to say that teachers are becoming more and more involved in administrative duties especially in pre-vocational education. Thus, in this study the term management will be considered to subsume administration. To assist with the definition, however, it is possible to look at the elements and functions of management and to use these to assist with the definition.

4:2. The Elements of Management

What are the primary, universal characteristics of the management process? Probably the most influential writer has been Fayol[5] who produced a list of management functions from his experience in the mining industry. He defined five elements of management as:

1. PLANNING - working out in broad outline the things that need to be done and the methods for doing them.

2. ORGANISING - the establishment of the structure through which work is arranged, defined and co-ordinated to

achieve defined objectives.

3. COMMANDING - the task of making decisions and embodying them in specific and general instructions, and serving as the leader of the enterprise.

4. CO-ORDINATING - unifying all activity and effort. This will involve the inter-relating of the various parts of the work.

5. CONTROLLING - seeing that everything occurs within the "rules" of the controlling/examining body and those of the institution. This is sometimes seen as consisting of REPORTING: keeping those to whom the executive is responsible informed as to what is going on.

It can be seen from this list of elements that management is not the exclusive responsibility of the head or senior members of an organisation. When considered in terms of pre-vocational courses, all of these encompass the responsibilities of the course leaders. The extent to which they are completed depends upon the type of institution in which they operate. Many of the elements, however, can be considered administrative in their process.

The terms "administration" and "management" have different origins. Administration is derived from governmental and civil service practices. Within this tradition it means (a) the work of

directing or executing - in our terms, the curriculum, in contrast to deciding what the curriculum should be, and (b) the work of analysing and preparing policy documents for decisions by the decision makers. Management, on the other hand, comes from industrial usage. managers being those who have the day-to-day executive control over the particular enterprise on behalf of the owners. Within industry, management has come to be seen as a policy-related activity, while administration is seen as more concerned with ancillary 'housekeeping','office', or 'desk' work.

The tradition in education has been somewhat different from both of these two. In schools and colleges the distinction has been made between the teacher or academic on the one hand, and those who service or support him and who are collectively known as "the administration", on the other. However, as has been said above, this distinction is being eroded although there are still administrative posts. It is being recognised that, perhaps for motivational purposes, the more involved a teacher becomes with all aspects of education, the more committed he will become. Hence, he is being required to undertake more and more of the administrative duties involved in the curriculum process.

4:3. Approaches to Management

The main theoretical approaches within management studies which inform the management functions and, in some cases, offer empirically derived "tools" for managers are described below. The

Open University[51] suggest a five-fold classification of approaches and are summarised in Fig. 13.

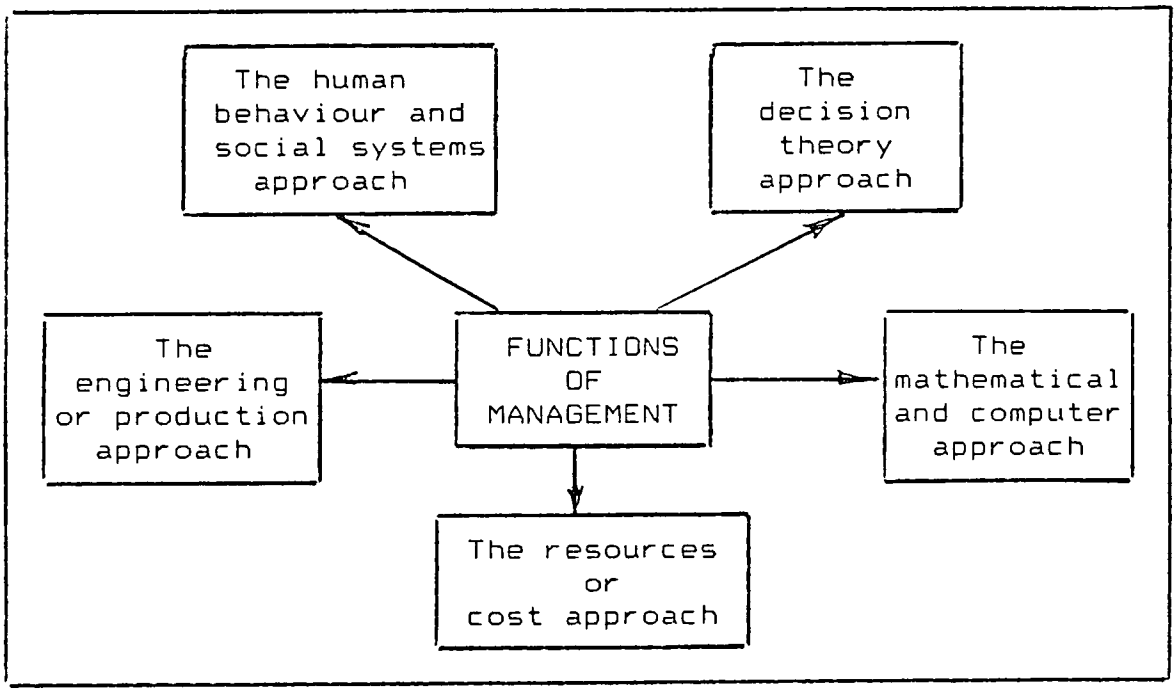

Fig 13 - Major Approaches to Management

Each of the approaches are described below but no hierarchy is implied by their order of treatment.

The Engineering or Production Approach.

This is probably the oldest approach and is sometimes known as the scientific approach. Its basis is related to the problems of production and the analysis of the production process in order to achieve sufficient quantity and quality of product, and efficiency in terms of cost of production.

The problem, in educational terms, is in the formulation of criteria for judging the sufficiency of quantity and quality.

The Human-Behaviour and Social-System Approach.

This approach gives a central place to "people" in management. It is concerned with the complex of human relationships, particularly inter-personal relationships in an organization. Much emphasis is placed upon the motivational factors involved with the individual. If the engineering approach starts from the process, this approach starts from the man.

The Decision-Theory Approach.

This approach concerns itself with rational methods of decision making, and particularly with models which display and evaluate alternative courses of action or ideas. When a decision-making situation is encountered, this approach will list a set of alternatives for action. To each alternative is attached a set of consequences - the events that will ensue if that particular alternative is chosen. The decision maker selects the alternative leading to a preferred set of consequences.

The Economic Approach.

Organizations, particularly educational ones, can be viewed as a collection of scarce resources - people, money, time, equipment. This approach would see the main purpose of management as the maximization of output given constraints of resources, or the minimization of costs given certain

requirements of output. This might be a necessity for a business organization but its applicability to educational units is open to question.

The Mathematical and Computer Approach.

The belief here is that, if management, or planning, or decision making is a logical process, it can be expressed in terms of mathematical symbols and relationships. Thus, this approach to management can be related to a mathematical equation. This has resulted in a systems approach to management with inputs, processes and outputs. Latcham[52] gives the example shown in Fig. 14 where the system is related to the processes of a college.

INPUTS	PROCESSES	OUTPUTS
Staff Accommodation Equipment Money Client Demands Students Requests for advice/information Other demands eg for employment	Learning Teaching Administration Research Consultancy Curriculum development Staff development Student services Resource allocation	Qualified students Courses Learning opportunities Help/Advice Client satisfaction Source of employment

Fig. 14 - Computer Approach of the College System

Here, the college is seen as an input, process, output system

with each element placed in the appropriate category.

The fact that there are different schools of management theory, or perhaps, more correctly, alternatives for management, poses the questions: to what theory does the practising manager give support? Does the particular activity lend support to one school of theory? It is probably the case that the manager makes his own synthesis of theory pragmatically and gives priority according to the needs of a particular situation. It is also possible that all the approaches have some validity to pre-vocational education management, though none has total applicability.

The engineering approach probably needs the complement of the human behaviour approach. The decision-theory approach, if applied with complete vigour, would exclude intuition and imagination. The resources approach of getting goods at least at cost price could not possibly be the main factor for education. The operational-research approach may optimise certain logistical operations yet ignore subtle human factors incapable of mathematical analogy. Thus, it can be suggested that:

(i) the total application of one approach might concentrate upon one aspect of the organization to the detriment of the others, and

(ii) optimization of the management function is obtained by

synthesis through the manager himself on a largely subjective basis.

4:4. Educational Management

Before considering educational management it is necessary to consider two key concepts; bureaucracy and professionalism.

Weber (discussed in Bittner[53]) produced the concept of bureaucracy in the late nineteenth century when organizations were dominated either by the whims of authoritarian industrialists or entrenched political systems. He identified the features of an ideal bureaucracy as shown in Fig. 15. It should be noted that a major dimension was "Hierarchy of Authority", existing as a firmly ordered system of superordinate and subordinate positions that validate authority.

DIMENSIONS OF BUREAUCRACY

Hierarchy of authority
Division of labour
Technically competent participants
Procedural devices for work situations
Rules governing behaviour of members
Limited authority of office
Differential awards by office
Impersonality of personal contact
Administration separate from ownership
Emphasis on written communication
National discipline

Fig. 15 - Characteristics of Bureaucracy

Though Weber saw bureaucracy as desirable at that time, it must be

noted that it has now come to have a non-technical meaning that conveys remoteness, excessive impersonality, delay, "red-tape" and inefficiency. Also some writers no longer see bureaucracy as the form best suited to contemporary demands. Bennis[54] sees the death of bureaucracy because of:

(i) a new concept of man based on his complex and shifting needs,

(ii) a new concept of power based on collaboration and reason,

(iii) a new concept of organizational values based on humanistic, democratic ideals.

Webers "ideal-type" of bureaucracy with its emphasis on hierarchical control has been attacked by those who did not see authority based on position as the same thing as authority based on expertise and argued that some organizations are characterised by having authority based on expertise. Authority based on expertise, which is very important for education in general and pre-vocational course management in particular, is wholly connected with the concept of professionalism. This concept has a number of interdependent beliefs:

(a) theoretical knowledge as the basis of practice,

(b) the importance of professional association as a core of control of members,

(c) individual autonomy in decisions involving practice with

clients.

In education, (a) and (c) are true, but (b) is not. The teaching profession does not have a professional association like law and medicine, which controls their members practice. However, the professionalism arguments have considerably modified the original concept of bureaucracy. In broad terms, according to GEMS[55], writers have shown from empirical research that:

(i) organizational structure and decision making processes are considerably modified from an "ideal type" bureaucracy when there are large numbers of professionals.

(ii) the bureaucratic-professional dimension exists as a variable for organizational structure within organizations as well as between organizations.

The extent to which educational institutions depart from the ideal bureaucratic model, and are modified by professionalism depends upon the nature of the educational establishment (whether it be school, sixth-form college, technical college ar tertiary college) and the extent to which the teachers perceive themselves as professionals. Getzels[56] identified two requirements of every organization - the expectations of the organization and the personal needs disposition of the individuals who work in the organization. The degree of professionalism, he suggested, is directly related to the personal needs-disposition of the employees

(Fig. 16). The implications of the diagram are that administrators in colleges must pay greater attention to personal needs-disposition than administrators in factories.

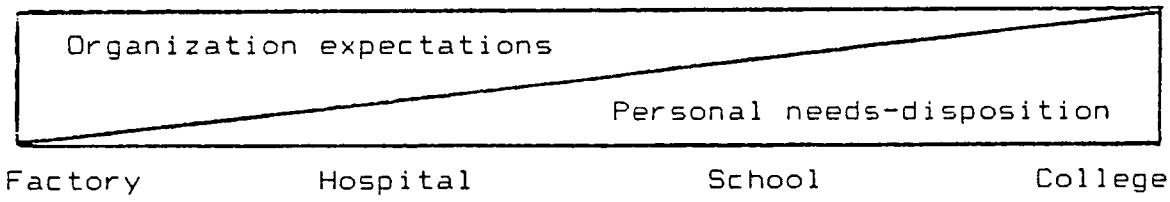

Fig 16 - Personal Needs-disposition

The extent to which decision-making is "democratized" in educational institutions certainly seems to correlate with the degree of professionalism. In colleges, the most professionalised of educational institutions, the decisions are taken through academic boards and their various sub-committees. Schools, however, are the most beaureaucratized in terms of decision making with the positional hierarchy dominating the making and executing of the critical decisions. Those schools which actively involve all staff and pupil representation in decision making are the exception, though teachers are increasingly demanding greater professional autonomy. It will be interesting to see the results of the Education Reform Act (1988) on this process.

It would seem therefore, that educational institutions are modified bureaucracies, yet with substantial differences in degree between institutions connected with the extent of professionalization

4:5. The Process of Generating Policy in Education

So far the elements of management have been described, some approaches to management from different areas have been aligned to education and the differences between bureaucracy and professionalism have been considered, as well as how these are related to education. When programme guidelines are presented to educational managers, it is necessary to develop effective policies to cope with the necessary implementation. At a conceptual level Davies and Morgan [57] discuss three possible courses of action:

1. Increasing the degree of rationality and structure in decision making. This may involve:

   - increasing the degree of structure and formality in the organization, regulations and procedures related to planning. (This is unlikely to succeed since non-compliance and informal by-passing of formal structures are likely to increase.)

   - increasing coercion by the hierarchy. (This is also unlikely to succeed due to increasing democratisation of institutions.)

   - applying shocks to the system through the control of elements which influence teacher's job satisfaction -

e.g. control of money, course reviews. (This would seem only possible in the short term.)

2. To use a "muddling-through" style of the planning process - non interventionist and procedural.

It is arguable whether external agencies would allow this to take place, what the cost to the courses would be and whether problems of curriculum change would be resolved.

3. To evolve a policy/planning process which recognises the problems but uses them positively and consciously to arrive at a workable solution. This would seem to involve:

- seizing the opportunity within the planning process of ensuring that small scale changes have maximum dividends;

- ensuring that successful planning decisions create internal commitment;

- ensuring that a firm and stable team exists over the period of introduction of the course.

The changes brought about through the introduction of

pre-vocational education courses have meant that policy decisions have had to be made at different levels. However, those of implementation have had to be made by "middle management" in ensuring that the respective curriculum frameworks have been implemented as they were intended within the constraints of the institution. From the three possible courses of action discussed by Davies and Morgan (op. cit.) it is evident that their third possibility is likely to be the most suitable for the management of a pre-vocational course.

4:6. Comparison of Management Styles

It would seem that, in the main, three different management styles are possible: (a) autocratic, (b) democratic, and (c) laissez-faire. Fig. 17 shows a possible classification of:

(i) Fayol's five elements of management,

(ii) the Open University's five functions of management, and

(iii) Davies' and Morgan's three policy generating processes

in terms of these management styles.

	Five elements of management	Five approaches to management	Three policy generating processes
Autocratic (Bureaucracy)	Organising, Commanding, Controlling.	Economic approach; Engineering approach; Maths approach	Increasing the degree of structure in decision making.
Democratic (Humanistic)	Co-ordinating, Planning.	Human behaviour/ social systems approach.	Evolve a process recognising problems and using them positively.
Laissez-Faire			Using a non-interventionist and procedural process.

Fig. 17 - Classification of Management Elements, Approaches and Processes.

It would seem that the terms autocratic, democratic and laissez-faire assist in simplifying the conceptual approaches that have been made. They allow the similarities between the approaches to be shown as well as giving comparisons between them.

These three terms can be applied to aspects of pre-vocational course management like "the manner that the courses are introduced to new teachers", "how course decisions are communicated" and "the way in which course decisions are made". These are all important management functions in any educational course and, the manner in which they are carried out will give indications of the style of management that is being employed. Fig. 18 indicates some of the different approaches that may be taken for each of these styles with respect to each of the course management aspects.

Management Style	How courses are introduced to teachers	How course decisions are communicated	Ways in which course decisions are made.
Autocratic	Presented by senior staff.	Verbally at meetings; Written form via memoranda; Verbally by senior staff.	Imposed by external body; Decided by senior staff
Democratic	Through working as a team member; Working with colleagues who have already taught on the course.	Arrived at democratically at team meetings.	Decided by the course team.
Laissez-Faire	Left to work on one's own.	In an ad-hoc manner (e.g. in corridors)	Decided by individual teachers.

Fig. 18 - Management Styles applied to Course Aspects

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Chapter 5

INSTITUTIONAL STRUCTURE

In this study, there are two main types of institution; schools and F.E. colleges. The structure of these types of institution are also two-fold having departmental and matrix structures. It has been suggested that the type of structure of the institution might have an effect on the curriculum of pre-vocational courses and, in consequence, it is necessary to consider the two types of structure.

In the departmental system the college or school is divided into departments corresponding to broad areas of the curriculum: engineering, business and secretarial, humanities, and so on. Each department then operates semi-autonomously, allocating its own budget, recruiting its own staff and students. Student hours are computed for each department separately and the salary of the department head and the number of lecturers at higher grades are determined from the total of student hours.

In the matrix system, teams cover the whole institution and individuals are responsible to the teams. There are generally two types of team: those with subject matter responsibilities and those with college functions (e.g. resources). On a diagram the two types of team are usually represented by lines at right angles to each other. In appearance, this resembles a matrix in

mathematics; a rectangular array of numbers obeying certain rules of combination with other such arrays.

5:1. Departmental (Hierarchical) Structure

The basic principles of the departmental organizational structure are:

1. Task specialisations - the range of the organization's activities, the services of special skills.

2. Scalar principle - the chain of command.

3. Unity of command - only one direct superior.

4. Span of control - a superior can direct the operations of only a limited number of subordinates.

Departmental structures are traditionally used in both schools and F.E. colleges. The differences between schools and F.E. colleges are mainly due to size - an F.E. college being (generally) larger than a school and consisting of larger departments. The head of the institution is designated Principal compared with Headmaster in a school. A typical college structure, using the above principles, is shown in Fig. 19.

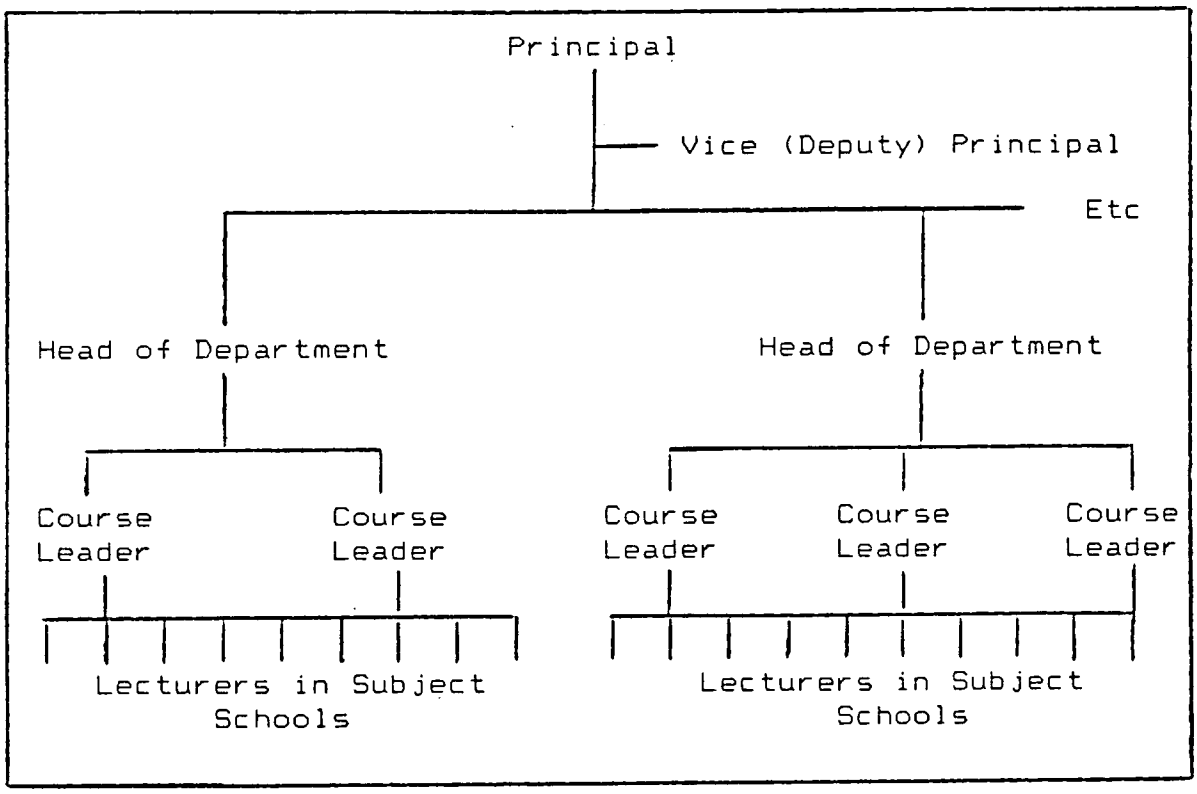

Fig. 19 - Typical College Departmental Structure

The diagram shows the structure of two of the departments within a college with the staff subdivided into specific departments (e.g. Business Studies, Engineering, etc.) with a number of schools located in each of the departments (e.g. in Engineering, schools of electrical, mechanical and construction might exist.). The course leaders might be Principal Lecturers, Senior Lecturers or Main Grade Lecturers dependant upon the size of the department and the level of work within the department. It is possible that lecturers within the departments will teach within different schools.

McGregor[69] has pointed out that structures derived from highly authoritarian sources like the church and the army are not

necessarily appropriate for business, industry or social organizations. He argues that social, political and economic factors are very important. It might be added in an educational context, that educational factors are also important.

Shephard[57] states that "bureaucratic structures are designed for a stable, predictable environment". He also suggested that new organisational requirements will result in a continuing decline in the emphasis on hierarchy and increasing reliance upon horizontal and diagonal informational flows.

However, there are very good arguments in favour of the hierarchical structure. Those in favour suggest that the hierarchical structure is fundamental to organizations just as it is to systems theory. Opponents, on the other hand, say that the traditional approach in emphasising the scalar chain of command and vertical relationships, neglect the horizontal and vertical networks dealing with channels of communication outside the vertical.

Theodossin[60], writing about the change from a departmental to a matrix structure discusses the advantages and limitations of the departmental type of structure as:

Limitations

1. *Difficulty in adjusting to changing demands.*
2. *Problems of adjusting to inter-disciplinary and modular courses.*
3. *Tendency towards inertia and entrenched views.*
4. *Empire building.*
5. *Conflict between college and departmental goals.*
6. *Over-identification with subject discipline.*
7. *Inward looking approach.*
8. *Demarcation disputes.*
9. *Problems caused by differences in the size of departments.*
10. *Problems caused by a 'difficult' head of department, or senior lecturer, have a blocking effect.*
11. *Communication between departments is poor or non-existent.*

Advantages

1. *Empire building may and can give rise to excellence and can thus attract students and good staff.*
2. *The identification with a discipline will also produce professionalism with its advantages.*
3. *The inculcation of team spirit.*

4. Lines of authority and communication are clearly seen.

These points must be considered alongside the demands of pre-vocational courses. Such courses must be able to provide choices for students and give them a "flavour" of a number of different subject areas so that, at a later date, they can make a more informed choice of their needs. The main aspect of a departmental structure is that it provides for professionalism and excellence within a subject discipline. The narrowness of the departmentally based course provision could be in conflict with the flexible and broad based provision which is required to enable pre-vocational students to become adaptable to employment opportunities as well as to their individual skills and abilities.

A further problem implicit in the departmental structure is based on the nature of communication between departments. Theodossin[60] *op cit* suggests that such a structure leads to insularity, empire building and lack of communication between departments. For pre-vocational courses it would seem important that teams of lecturers from different subject disciplines got together and provided a coherent course which consisted a common approach across the disciplines.

5:2. Matrix Structure

One alternative to the departmental structure is the matrix arrangement based on either Faculties or Functional Directors. The main difference with this type of structure is that it is based on courses as opposed to staff and that staff may teach on a number of different courses. One of the arguments against a departmental structure is that some of the tasks that are completed by the various departments are repeated by each of them e.g. Student Affairs, Resource Management, Curriculum Liaison. Thus, the Functional Directors of, say, resources, look after that aspect for all courses within the college. The intention of the matrix structure is that it is more likely to break down subject matter boundaries, improve the communication between staff and produce a more cohesive institution. Fig. 20 shows a typical structure diagrammatically.

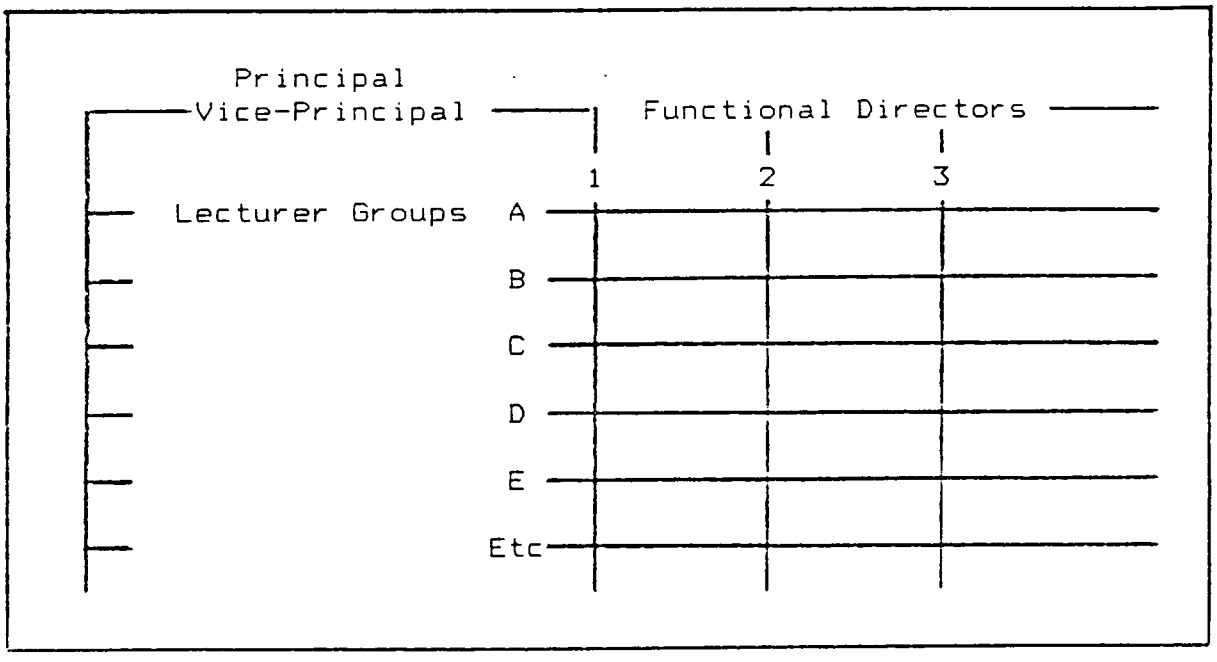

Fig. 20 - Typical College Matrix Structure

Underlying the structure shown in Fig. 19 are the duplicate Head of Department general duties which might be more effectively organized along the lines of specialist functions: hence Functional Directors. Fig. 21 shows the communication networks between the subject groups and the Functional Directors.

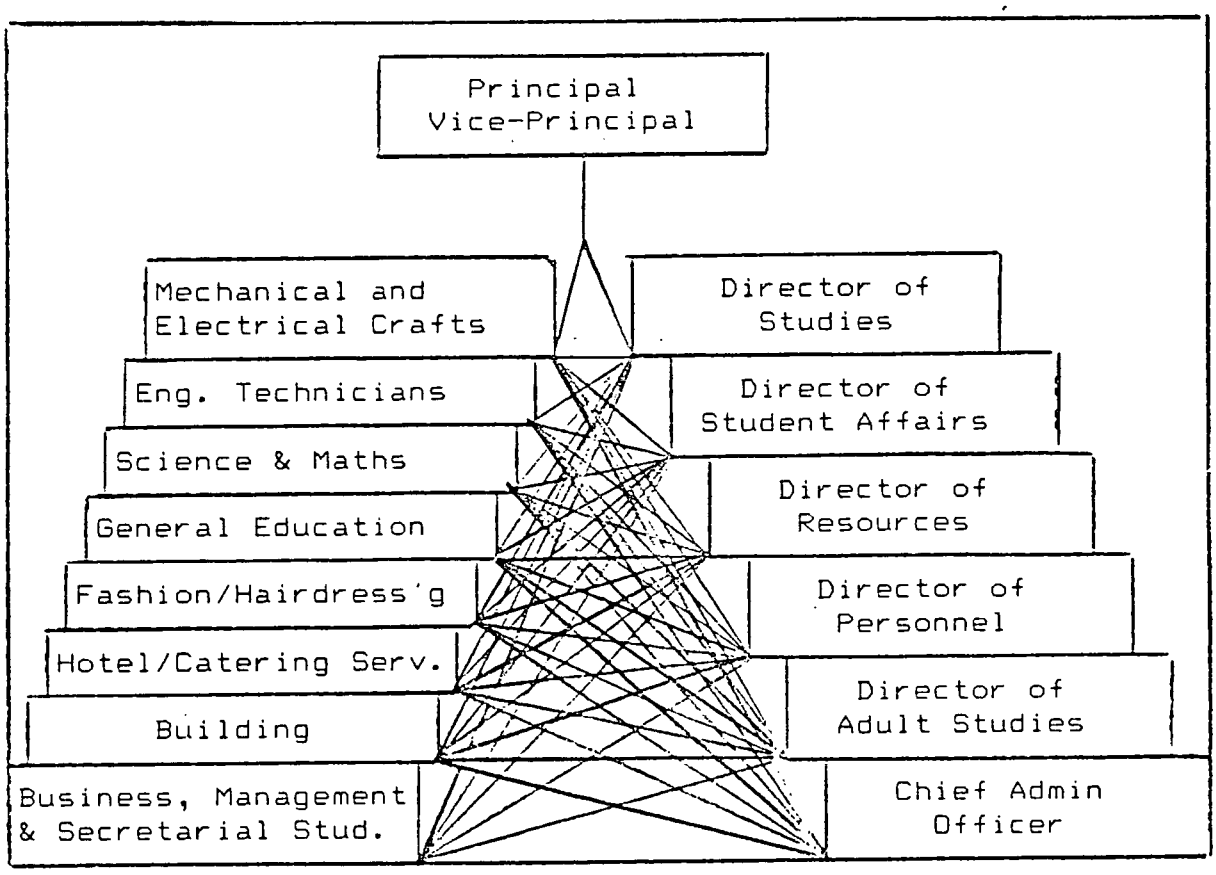

Fig. 21 - Communication Networks within Functional Directors

The basic principles for the organization between Functional Directors and Senior Management are relatively simple due to the small numbers of staff involved. Howevere, the Functional Directors cannot be expected to liaise with all of the staff within the college. This, then becomes the responsibility of the Course Leaders who liaise directly with the various Functional Directors.

Cherns[61] has commented that the bigger the organization the less likely a matrix is to succeed. This statement is made in spite of the fact that the aircraft industry in the United States was one of the first successful matrix structures. This might be as a result of the differences between educational and industrial

contexts (with Chearns talking about education). An interesting comment by Chearns is that teachers withdraw from a matrix structure because they are more dependant upon their own skills as opposed to the skills of a group, especially in terms of career advancement.

One of the problems of the matrix structure, identified by Nelson[62], is that of divided loyalties. Teaching staff are allocated to a subject group and yet their teaching is to a range of courses which, organizationally, is separate. Ferguson[63] in discussing this same point, suggests that if this is the case, then the prime importance of the Course Leader should be recognised. Subject leaders would have to be recognised as acting in a supportive role. In pre-vocational education this has been recognised where highly specialised subject teachers have reacted against this teaching because they can see their career advancement declining.

Again, Theodossin (op. cit) gives advantages and limitations of the matrix structure as:

Limitations

1. *Staff may be responsible to two or more course leaders with possible dis-orientation.*

2. *A feeling of lack of identity.*
3. *A feeling of lack of security.*
4. *Apparent structural complexity.*
5. *The engendering of frustration caused by the primacy of the course leader with the subject leader in a supportive role.*

Advantages

1. *Combination of a permanent college organization with temporary courses.*
2. *Ends problems involved in inter-disciplinary and modular courses.*
3. *Reduces the influence of "bad" senior staff.*
4. *Lateral communication easier.*
5. *Can end conflict between college and departmental goals.*
6. *Reduces the opportunities for empire building.*
7. *Allows for maximum flexibility.*

The main problem of the matrix structure for pre-vocational courses, as with other courses, would seem to be the apparent structural complexity. Traditionally a Course Leader will have been accustomed to going to one person (the next one up in the hierarchy) with any problems or suggestions; with a matrix structure he will have to decide which Functional Director will be able to give assistance and, hence, the apparent complexity.

5:3. Implications of Institutional Structure for Pre-Vocational Courses

It has already been shown (Chapter 2) that pre-vocational courses differ in many respects from traditional courses. Not the least of these differences is the negotiated, experience-based learning which has its roots in broad vocational training as opposed to narrow, subject specific learning. This means that the teaching/learning situations need to be very much different from those seen in conventional courses. It could, therefore, be argued that a different management structure might also be needed. There is no doubt that a team approach must be very important when integration of the various course elements is required. Thus, it is the effectiveness of the team which has implications for the successful operation of the course.

Futher implications are the job titles that are designated for the management of the course. The following possibilities exist:

1. Course Co-ordinator

   A person responsible for the operation, planning and development of a group of courses throughout the institution. Thus, a YTS co-ordinator would be responsible for the running of all of the YTS courses within the institute. This

involves the identification, with school heads, of course and year tutors; liaison with industry and institute between the on-the-job and off-the-job training elements; overseeing and monitoring of progress of students within the courses in consultation with the staff concerned; initiation, development and detailed planning of new courses in partnership with the school heads directly concerned; provision of essential and statistical and publicity materials for the group of courses; maintaining liaison between with school and industry committees.

2. Course Tutor

A teacher responsible to a course co-ordinator (or head of department) for the day-to-day running of all of the years and teaching groups of a particular course. This involves day-to-day correspondence relating to the course as designated by the course co-ordinator; recruiting and interviewing students; co-ordinating schemes of work and the necessary integration of subjects; oversight and collation of profiles and external examinations and maintenance of student records; future planning and development of the course.

3. Year Tutor

A teacher responsible to the course tutor for a particular working group of students. This involves administrative matters concerning the day-to-day running of courses;

collation of reports and records; completion of student profiles in consultation with students and, hence, negotiation of individual programmes.

4. Personal Tutor

A teacher responsible to the appropriate year and course tutor and to his school head for the pastoral care of a limited number of individual students (e.g. typically not more than 10 students). This involves being the first person a student should consult about problems of study, welfare and careers problems.

5. Subject Leader

A teacher responsible to course leader of school head for the teaching of a subject. This involves maintaining, improving and co-ordinating the standards of his subject and its teaching throughout the institute; control and development of the specialist accommodation and equipment allocated to the subject.

6. Subject Teacher

A teacher responsible for the teaching of a particular subject. This involves producing a scheme of work and preparation and conduct of lessons; the setting and marking of coursework, internal examinations and continuous assessment of students; maintenance of student records.

Not all institutions will have all of these posts appointed; often it depends on the size of the institution whether, for instance, a course co-ordinator is appointed. If this is not the case, the course tutor (or next in line) will have to shoulder these responsibilities.

It will be seen from the above "job descriptions" that communication is required both vertically and horizontally. This horizontal facet is more important when, for instance, a course co-ordinator is appointed. Consequently, the size of institution might well have an effect upon the management structure required. A small institute might benefit from a matrix structure which facilitates the horizontal communication channel. On the other hand, in a larger institution, the appointment of the co-ordinator can ensure that these functions are carried out without the need of the matrix structure.

There can be no doubt that pre-vocational courses need to bring together different teaching subjects. The integrated curriculum needs to be co-ordinated in some fashion; core skills need to be taught by all of the subject teachers and need to be co-ordinated to avoid both differences and duplication; profiling of student achievements needs to be co-ordinated between the subjects and the process of negotiation, as a result of this process, needs to be communicated to all of the course team. Interestingly, when a matrix structure is formed, it is invariably done in an

authoritarian manner (without consultation and with imposition upon the staff). The team approach ideally needs to come from the team itself without having to be imposed by a specific structure and, the question needs to be asked whether a team approach can be imposed.

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Chapter 6

Pre-Vocational Course Management

Pre-vocational course management has two major aspects: staff management and curriculum management. These two aspects can have a different focus, can involve different personnel, can involve different components and yet result in the same outcome - an effectively and efficiently run course. Course management is effectively about involvement through ownership (McGregor[64]). The more that teachers and trainers are involved in the course, the more they will feel a certain amount of ownership of it and, hence, the more effectively and efficiently it will operate. Yet staff management is often seen as the province of "managers" who are often assumed to be "senior" members of staff (Incentive Allowance "D" teachers in schools, or Senior Lecturers in FE, and above) while curriculum management, particularly at classroom level, is often seen to be the province of the more junior staff.

It is important that staff "own" an initiative in their institution for at least three reasons: first, it helps to pre-empt and reduce resistance to change; second, it ensures that the achievements of the initiative survive an initial impetus; third, it enables the changes to spread to other areas of work.

6:1. Staff Management

Much has been written about educational management (as was explained in Chapters 4 and 5 when discussing Management Styles and Institutional Structure) and yet very little research has been completed on the effect of management upon (particularly pre-vocational) courses.

6:1:1 Course Introduction to Staff

The manner in which courses are introduced into institutions, and the manner in which courses are introduced to new staff, is a staff management function and has obvious implications for the success of the course.

As pre-vocational courses are relatively novel, when they are introduced into institutions they are often innovations. A number of strategies for innovation have been identified and there is a high degree of agreement among them. One of the most comprehensive analyses of strategies for innovation is that offered by Chin and Benne[6:1] who identify three major groups of strategies:

(i) empirical rational;

(ii) normative-re-educative; and

(iii) thirdly, power-coercive.

Empirical-Rational Strategies

Underlying this is the assumption that man is rational and he will follow his rational self-interest once this is explained to him. An innovation is usually suggested by someone who knows both its possible effects and the individuals who will be affected by the innovation.

The main task of the innovator is to show as effectively as he can the validity of the innovation in terms of the gains to be achieved by adopting it. This attitude to innovation is based on an optimistic view of man and sees the main obstacles as ignorance and superstition; it presents him with knowledge and assumes that the required changes will take place.

Normative-Re-Educative Strategies

This is a more complex strategy than the empirical-rational in that it assumes that patterns of practice and action are supported by socio-cultural norms and by commitments on the part of individuals to these norms. Change in a pattern of practice or action, according to this view, will occur only as the persons involved are brought to change their normative orientations to old patterns and develop

commitments to new ones. These involve changes in attitudes, values, skills and relationships, not just changes in knowledge.

Owing to the complexity of this strategy, Nicholls[66] suggests that it is rarely used in schools and colleges. Innovations, he states, concentrate upon specific aspects and not on procedures and processes associated with the innovation.

Power-Coercive Strategies

In this third group of strategies, power is not seen in the sense of influence of one person upon another but in the ways in which the power is generated and applied in the processes of affecting change. In the emperical-rational approach, knowledge is regarded as the source of power, power-coercive strategies emphasise the use of moral power, playing on feelings of guilt and shame.

Chin and Benne[65] op cit believe that this strategy is more widespread than most people would be willing to admit. In schools and colleges there is some evidence to suggest that power-coercive strategies are widely employed despite the current debate about staff involvement in decision making.

It would appear that the three strategies outlined by Chin and

Benne have much to commend them in terms of the ways that pre-vocational courses are introduced in schools and colleges in terms of either empirical-rational or power-coercive types. However, a team approach concentrates upon some of the aspects of the normative-re-educative approach in that an attempt is made to change the attitude of all of those who are to be involved.

In terms of the introduction of courses to staff there are differences between (i) the introduction of a new course into an institution to all of the staff and (ii) the introduction of a new member of staff into an existing course. With a new course all of the staff are in the same position - the requirements are new to all of them, whereas with an existing course its requirements are only new to the new member.

With a new (TVEI) course in an institution, Davies[67] suggests the following ways that they can be introduced:

(a) a "bolt-on" package - i.e. using the existing facilities and experiences to provide a new pre-vocational course;

(b) using finance to buy new equipment and material resources to increase the effectiveness of existing courses;

(c) plan and set-up a completely new course structure in which all of the elements are completely integrated.

Davies (op. cit) suggests that, at his college, it was decided to use alternative (c) because, the best way of achieving long-term curriculum change was to concentrate upon the complete course. This, he suggests, had significant implications for management processes and structures. This was achieved through a Curriculum Development Group with the brief of reviewing the existing courses and of matching the existing courses with new pre-vocational requirements; to integrate the core curriculum into the new course, to provide guidance, counselling and profiling, to integrate learning from (work) experience and to develop student-centred learning methods.

The achievement of a team approach can come about as a result of the way in which the course is introduced to the teaching team. The way in which this is done probably depends upon the management processes used in the institution as much as through the requirements of the course itself.

Much emphasis within the operation of pre-vocational courses is placed upon the team approach. BTEC[6,8] are explicit about this stating:

> *"The Council reiterates its conviction that the quality of course management and the commitment of the staff team are most important factors in the development of effective ..... courses".*

Other pre-vocational courses are implicit in the demands of team operation through the curriculum aspects such as "core-skills" and student-centred approaches. This team approach involves all of the staff who are involved in the course operating in the same

manner, all of them being familiar with with the course requirements to a similar degree and all of them integrating with each other. Reece[69] states that the day has gone when the teacher can be "king of his own domain" and "operate a closed door policy" where he operates in isolation from his colleagues.

Three different approaches might be used to introduce new courses to a team or to introduce an existing course to a new team member. These would seem to be:

1. Initial presentation by a senior member of staff and then leaving the staff member to work on his own;

2. Through working as a new team to plan and prepare course materials;

3. Working with other colleagues who have already taught on the course or on courses of a similar nature.

6:1:2 Communication of Course Decisions

A further management process which has an obvious effect upon the operation of a team is the manner in which course decisions are communicated to all members of the team. In terms of the

management styles discussed on pages 66 and 67, the different approaches that might be used include:

1. Autocratic
   - verbally presented by a senior member of staff after the decision has been reached,
   - presented in writing via memoranda, etc.,
   - presented verbally at meetings.
   - in an ad-hoc manner in corridors, staff rooms,

2. Democratic
   - arrived at through discussion and debate at meetings.

3. Laissez-Faire
   - in an ad-hoc manner in corridors, staff rooms,

In an HMI Survey[20] of post 16, one year full-time courses, HMI report under "Management of Courses" that:

> *"staff in FE colleges frequently emphasised that regular informal contacts with colleagues were made in staff rooms. Although the value of such contacts should be acknowledged, they cannot take the place of a systematic structure - especially when many staff are involved. Formal meetings serve to ensure that all teachers, including those who contribute from a variety of departments, are fully involved."*

HMI here are laying emphasis upon the need for a democratic process to be used in the management of pre-vocational courses and, to ensure that this takes place, for a formal mechanism to

be introduced. They conclude that, in the 64 courses that they visited in autumn 1984, only one third had an effective communication network between staff.

6:1:3 The Manner in which Course Decisions are Taken

Decision making is a continuous process for the successful operation of a course. Further, it is a management problem which must be addressed either explicitly or (as is more often the case) implicitly by all courses.

The types of decisions that have to be taken include:

(i) administrative decisions - e.g. allocation of staff to curriculum areas, spending of course budget, allocation of rooms, purchasing of resources, publicity, enrolments, etc.,

(ii) course delivery - e.g. sequencing of topics, use of teaching/learning strategies, design and use of teaching/learning resources, etc.,

(iii) student assessment and course evaluation - e.g. assessment of student work, decisions about certification, course evaluation, etc.

The continuous nature of the process is evident from the administration to the course delivery and, finally to assessment

and evaluation. However, the evaluation should provide a feedback loop in order to make judgements about the other aspects of the course - hence a continuity of the process.

The manner in which the decisions are taken can again be classified into the autocratic, democratic or laissez-faire categories that have already been discussed. Some of the decisions are imposed by the validating body (e.g. decisions about additional studies in CPVE courses), but most of the others are left to the institution, team or individual teacher. The manner in which these decisions are made depend upon the mangement structure and climate that exists within an institution. It has already been suggested that a democratic climate has beneficial effects especially for pre-vocational courses with their emphasis upon integration and co-ordination. This process of collaborative decision making is one advocated by Schmuck[71] although he recognises the problems of time and effected interests.

Thus, pre-vocational course decisions may be taken by one or more of the following methods:

Autocratic

(i) imposed by an external body (e.g. MSC),

(ii) decided by senior staff in teacher's department,

(iii) decided by senior staff from another department,

Democratic

(iv) decided by the course team either at a meeting or by other means of consensus,

Laissez-Faire

(v) decided by the teacher himself without reference to senior staff or the course team.

6:1:4 Amount of Time Spent upon Course Activities

In an earlier discussion (see Chapter 3, Curriculum Issues) it was suggested that the amount of central contol over the pre-vocational curriculum is limited; institutions are presented with a framework upon which to design their own curricula. YTS, for instance, as discussed by Stoney and Lines[72], gives responsibility to the institutions (or managing agents) for overall scheme design and negotiations with outside agencies. They further show that detailed design, delivery, negotiation and co-ordination activities are devolved to individual departments in FE colleges, with only loose control being exerted from the centre except in matters of finance. This poses a problem in terms of scheme co-ordination and cohesion although it has the advantage of ownership. They indicate that 70% of FE colleges have made an appointment of YTS co-ordinator to assist with scheme cohesion and their roles encompass negotiation, co-ordination, curriculum and staff development. It would, then,

seem imperative that, if ownership was to be meaningful and fruitful, the devolution of power was not only to the co-ordinators, but to the course team itself. The more involved the course team could become, the more innovative approaches might be employed. Stoney and Lines (op cit) find that senior managers, when filling staff appointments, have looked for adaptable, well motivated staff who have already gained some experience (not necessarily in an FE context) of vocational preparation work and who have an empathy with young people.

6:2. Curriculum Management

There are considerable differences in curriculum management between traditional, external syllabus with external examinations and the pre-vocational curriculum framework. In schools there are three main modes of curriculum design as shown in Fig. 22 below.

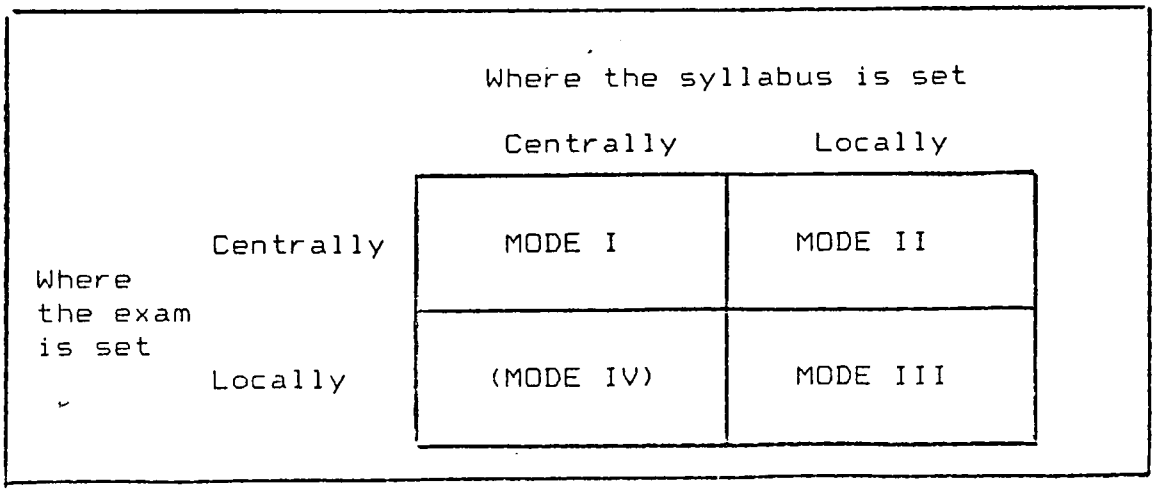

Fig. 22 Modes of Curriculum Design

When the three main modes were introduced, it was not envisaged

that schools' examining boards would introduce a "fourth mode" and it was not originally enumerated or named. The three main modes of examining were recommended to GCE and CSE Boards when Mode 1 was the normal mode. Hence, it took some time for the various boards to offer all three.

In FE, central bodies that offer modes I, II and IV are usually called examining bodies, while those offering mode III are usually called validating bodies. Pre-vocational education is most akin to Mode III where, although a framework is suggested, the "syllabus" is locally set (indeed it should be negotiated with individual students) and locally "examined". The various boards (Joint Board, BTEC and Training Agency) are, therefore, validating boards.

The modes are useful in the showing of a "decision matrix" for curriculum intentions as shown in an FEU review[73] of major curriculum designs in FE. This provides a Decision matrix which is shown in Fig. 23.

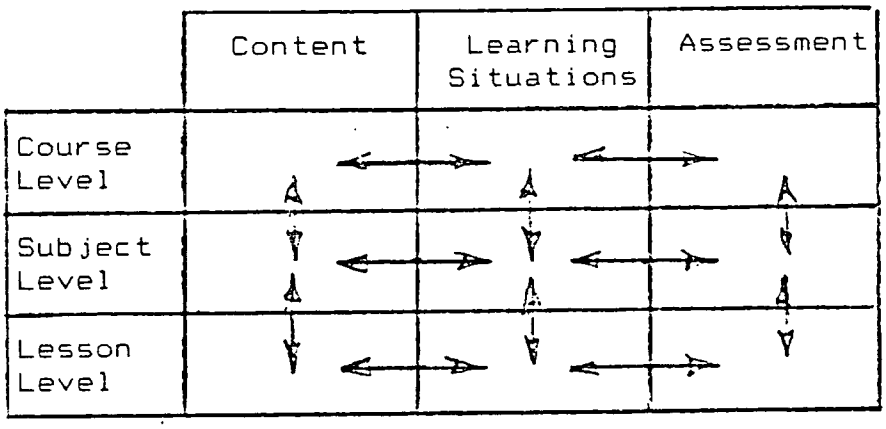

Fig. 23 Curriculum Decision Framework

The suggestion is that the decisions that relate to each of the cells in the matrix should inter-relate. This is certainly the case with the pre-vocational curriculum where it is important to relate all three of the levels to each of the curriculum areas of aims/content, learning situations and assessment. This, has clear implications for a course team approach as well as for the manner in which course decisions are taken.

Traditionally, the lesson level decisions have been the province of the teacher, whereas deisions at subject and course level have been taken by senior staff and/or examination/validating bodies. With a curriculum framework as is presented by the pre-vocational bodies, many of the decisions are left to the institution. It has been suggested by Oakes[74] that the decisions are best taken by the team which is going to deliver the course. He suggests, similar to the suggestions above for communication of course decisions, that the involvement of the team is most likely to have a beneficial effect upon the design, delivery and evaluation of the course. The democratic process, he implies, is more

likely to lead to better implementation than are autocratic or laissez faire processes.

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Chapter 7

DESIGN OF THE STUDY

7:1. Introduction

The present decade has a better claim than most to designation as one of crisis for education. All stages of education are in the process of quite extensive changes: The Reform Bill is changing primary, secondary and tertiary education; changes in the secondary examination system has seen the introduction of the new GCSE; the Training Agency (formerly the MSC) is making great inroads into both secondary education (through TVEI) and post 16 education (through YTS) and by-passing the Department of Education and Science; the increase of unemployment through the demise of (particularly) heavy industry is changing the apprenticeship system; the reform of Vocational Qualifications is making sweeping changes to the post-16 education. Some of these have already taken place, others are still in the process of change.

Throughout all of these changes there are three common threads:

(i) there is a change to student-centred learning and the placing of more responsibility onto the student for his learning;

(ii) changes in management systems in education placing more responsibility onto the teacher for the design and operation of the courses;

(iii) a move away from the traditional academic course to ones which are more vocationally relevant.

This, then, has led to much emphasis being placed upon pre-vocational courses; instead of starting these at 16 years of age as previously, more of this type of course has been carried out in schools starting at the age of 14. In addition, attention has been focussed on major changes in the management and operation of courses in the post compulsory sector.

7:2. Aims of Study

The aim of the study is to consider the management styles of pre-vocational courses and to determine what effect, if any, this has upon the curriculum offerings. There are, of course, different types of pre-vocational course and it may be that these require different management styles. The more specific aims are to seek whether:

1. The type of pre-vocational course effects the style of management; and

2. The type of institution in which the pre-vocational course is located has an effect upon the style of management.

3. The management structure of the institution effects the nature of delivery of pre-vocational courses.

4. The style of management effects the content and learning processes of pre-vocational courses;

The types of pre-vocational courses that will be considered are TVEI, CPVE, YTS and BTEC First Awards.

The style of management will be related to the different approaches that might be adopted. In general these might be subdivided into those:

(a) primarily concerned with costs and resources; an emphasis on controlling, commanding, organising and administration - this can be called Autocratic

(b) primarily concerned with social aspects which concentrate upon the individual and co-ordinate the efforts of individuals - this can be called Humanistic or Democratic

(c) which allow decisions to be made by the individual and have decisions made in an ad-hoc manner - this can be termed a Laissez-Faire approach.

Any of these styles may follow the decision theory, mathematical and computer or engineering/production approaches of management depending upon the personalities and backgrounds of the individuals concerned.

The type of institution in which pre-vocational courses are located will be considered in terms of schools, FE colleges, tertiary colleges, and VIth Form colleges.

The delivery of the courses will be considered in terms of the requirements of the particular courses. Most of them, for instance, require the use of core skills, involve a certain amount of negotiation of the curriculum with the students, need alternative assessment techniques to cater for such matters as records of achievement.

Management structures in schools and colleges vary between department and matrix structures and combinations of these two major types.

7:3-Selecting a Research Method.

Once the purpose of the study had been formed a decision had to be made as to how information was to be collected. The initial decision was whether to use *quantitative* or *qualitative* methods. It was decided to use the former as this would give more tangible evidence and that, as reported by Bell et al[75], the social evidence in the study exists and it needs to be ascertained. The following options for the use of the approach are given by Bell (op cit) as to how the hypotheses might be tested:

- action research,
- case studies,
- interviews,
- questionnaire.

As the writer is not directly involved in the management of any pre-vocational course it was decided that the method of data collection would have to be either interviews or questionnaire. As the latter would allow more information to be collected it was decided that a questionnaire would be designed and distributed. It was realised that this method of data collection would be less valid (Russell[76]) - but this would be offset by the greater amount of data collected and that statistical analyses could be used to gauge the reliability of the information collected.

A further reason for the use of the questionnaire was that computer analysis would be available for the analysis of the results. This would be used to give "category counts" of responses to the various questions and, as a social science package (SPSS-X[77]) was available, correlation between the categories would be able to be made.

7:4-Obtaining a Representative Sample

As the quantitative method was to be used the issue of a "postal" questionnaire had to be considered. Access to various teachers attending the in-service Certificate-in-Education would be quite easy to arrange and these would give the information required, so it was decided to use this as one source. However, the researcher would not be present (nor would it be necessary for this to take place) during completion, so consideration would have to be given to improving the receptivity of the questionnaire. This was achieved through an initial page and a covering letter which:

(a) attempted to give conviction that the investigation was a worthwhile piece of work,

(b) explained why the investigation required the co-operation of the person being approached, and

(c) indicated the use to be made of the eventual research materials.

The research required the collection of information from schools, colleges and managing agents so care had to be taken to ensure that information was collected from each of these sources as well as different management structures (i.e. Tertiary and Matrix and Departmental types). As the Certificate-in-Education teachers would not supply this cross-section, questionnaires would have to be sent to specific schools, colleges and managing agents. It was realised, however, that some of the colleges would themselves be managing agents for the YTS students. Thus, questionnaires were sent to specific institutions in the North of England where it was realised that Certificate-in-Education teachers would not supply the required information. In order to attempt to have some "control", in each case the questionnaires were given to Staff Development Officers (where these existed) and they were requested to distribute to teachers who were involved in pre-vocational courses through either teaching or management or both.

In order to attempt to increase the response rate of the postal questionnaires, a stamped, addressed envelope was enclosed for the return of the questionnaire.

7:5-Development of the Questionnaire

The decision had to be made whether to use open or closed

questions in the design of the questionnaire. The following advantages and disadvantages of the two were considered as shown in Fig. 24.

Open Questions	Closed Questions
Allows freedom of expression.	Limited to researchers questions.
Difficult to analyse.	Easier to analyse.
Responses might be long.	Responses short (ticks).
Longer time required to complete.	Shorter time required to complete.
Aspects might be forgotten.	All aspects brought to attention.

Fig. 24 Comparison between "Open" and "Closed" Questions.

Owing to this comparison and the fact that computer analysis was to be used, it was decided that, in the main, "closed" questions would be used that required only a tick for their completion. However, to overcome the problem that such a design does not allow freedom of expression and that the researcher might have omitted some important facet of a particular pre-vocational course, it was decided to have a final page to the questionnaire that invited "any other comments" (see questionnaire, appendix 1, page 9).

As easy access to teachers who were attending the "Advanced Diploma in Pre-Vocational Education and Vocational Preparation" course was available, and that these teachers had knowledge of the content of the requirements of the questionnaire, it was

decided to use these teachers to pilot the questionnaire. In addition, two persons who were very experienced in computer analysis were used for this purpose. All were invited to complete the questionnaire and to comment upon the following:

- any ambiguities,;
- types and sequence of questions,
- length of questionnaire,
- layout of instrument,
- clarity of questions, and
- any other comments that might be useful.

and, the computer experts were invited to comment on the layout for ease of data collection for computer analysis.

A separate page was inserted as page 2 of the pilot questionnaire so that these persons could indicate their thoughts. This resulted in many changes in the design of the instrument in terms of the number of questions, the overall length of the instrument, the types of questions asked, the layout to be used, and changes to individual questions to overcome some of the ambiguities.

The questions included in the questionnaire were designed specifically from the information that was required to be collected. There were 8 initial questions asking information about individual teachers and the institution in which they work. i.e.

1. Type of course in which the teacher is involved.
2. Type of involvement.
3. Special responsibilities
4. Length of involvement in pre-vocational course.
5. Grade of teacher.
6. Subject area of teaching.
7. Type of institution in which the teacher works.
8. Management structure of the institution.

These were followed by two questions (numbers 9 and 10) about the management of the pre-vocational courses in which the teacher is involved. Question 9 asked how the pre-vocational course was introduced to teachers; whether it was introduced autocratically, or democratically or in a laissez-faire manner. These were presented as:

Style	Method of Introduction
Autocratic	Introduced by a senior member of staff an· left to work on own.
Democratic	Through working as a member of a team to plan and prepare materials
Laissez-Faire	Working with other colleagues who have already worked on the course

Question 10 asked how course decisions are communicated to staff. Again the autocratic, democratic, laissez-faire styles were used. These were presented as:

Style	Method of Communication
Autocratic	- Verbally by senior staff, or - In written form via memos, or - verbally at meetings.
Democratic	- Democratically in staff meetings.
Laissez-Faire	- In an ad-hoc manner - e.g. in corridors.

The next question (No. 11) identified fourteen important facets of pre-vocational course organization in terms of (a) course administration, (b) course delivery and (c) course evaluation and asked teachers how decisions were made (using the autocratic, democratic and laissez - faire continuum again) in their institution about each of the facets. The various facets used were:

Category	Facet of Course Organization
Course Administration	- Allocation of staff to subjects - Allocation of rooms - Manner in which budget is spent - Purchasing of resources - Decisions about publicity - Decisions about enrolments
Course Delivery	- Sequencing of topics - Decisions about additional studies - Use of teaching strategies - Use of teaching resources - Design of teaching materials
Course Evaluation	- Assessment of student work - Decisions about certification - Overall effectiveness of course

The final question (No. 12) identified 37 aspects of the operation of pre-vocational courses from six categories (i.e. (1) curriculum planning; (2) teaching preparation; (3) curriculum delivery -teacher centred; (4) curriculum delivery - student centred; (5) aspects of pre-vocational curriculum, and (6) student assessment/course evaluation. The questions asked if the aspect was applicable to their particular course and, if so, if they spent more, less or about the same amount of time on the aspect with pre-vocational courses compared with other courses.

Category	Aspect of Course Operation
Curriculum Development	- Attend team meetings - Discuss coursework with employers - Discuss coursework with teachers - Work as a team member to modify course - Attend course planning meetings - Consult employers about the course - Attend design meetings - Read teaching books/journals
Preparation for Teaching	- Make visual aids - Negotiate the curriculum with students - Participate in team teaching - Prepare handouts/worksheets
Teacher-Centred Meth.	- Dictate notes to students - Present a lecture to students
Use Student-Centred Methods	- Use problem-solving/project work - Give assistance outside class time - Advise about further opportunities - Use role-play, etc. - Hold small group tutorials - Conduct discussion sessions - Allocate time for private study
Important Pre-Vocational Curriculum Aspects	- Use experience-based learning - Associate learning with workplace - Develop personal and social skills - Use contract learning - Use guidance techniques - Involve students in community work - Use residential experience - Concentrate on communication skills - Use common core teaching and learning
Student Assessment and Course Evaluation	- Discuss assessment with colleagues - Discuss assessment with students - Use graded assessments - Use profiling techniques - Mark test papers - Maintain records of student work - Invite comments from students about the course

Instead of having these questions in the sequence above and sub-divided into categories, they were presented in a random order in the questionnaire.

7:6-Data Collection

A total of 250 questionnaires were photocopied. These were distributed to teachers in four FE institutions (one with a matrix structure, one with a departmental structure, and two tertiary colleges), and three schools, as well as to teachers who were completing the Certificate-in-Education and Advanced Diploma courses in Durham whose institution was not specifically known but who attend from FE/HE institutions, schools and managing agents.

Of the 250 questionnaires photocopied, 205 were distributed and 93 were returned. This gives a response rate of 45%. As the questionnaires were returned they were numbered in chronological order of return, and the results from each of the questions was quantified. i.e. each response was related to a number. This enabled the results to be placed onto a spreadsheet for easy access into the computer. The SPSS program required that each of the questions was named with not more than eight characters. This is done to allow for ease of identification in the print-out as well as to allow for different questions to be cross-tabulated in the analysis.

7:7-Data Analysis

It has already been explained that the SPSS-X Social Studies computer package was to be used to analyse the data. Initially this package gives basic statistics as an overview of the data. This gave the following data presented here as an example of question 1 which asked the type of pre-vocational course that respondents were MAINLY involved (they were asked to tick only one box):

Value Label	Value	Frequency	Percent	Cumulative Percent
YTS	1	49	52.7	52.7
CPVE	2	15	16.1	68.8
TVEI	3	8	8.6	77.4
BTEC 1st	4	14	15.1	92.5
Other	5	7	7.6	100.0
TOTAL		93	100.0	

MEAN = 2.054 STD DEV = 1.354

Thus the frequency shows the numbers who responded in a particular category (e.g. 49 were teachers on YTS courses) and the percentage that this was of the whole sample (in this case 52.7%). This is repeated for each of the values and for each of the questions. The standard deviation gives an indication of the "spread" of responses around the mean value.

Once the data had been summarised in this matter it was then considered important to cross-tabulate the initial 8 questions (see page 111) with questions 9 (how courses are introduced to

teachers), 10 (how decisions are communicated to teachers), 11 (how decisions are made), and 12 (the pre-vocational curriculum aspects). If the example above of question 1 is taken - the type of course that respondents taught upon - this would be cross tabulated with, for instance, the first part of question 12. i.e. Whether "more time", about the "same time", "less time" or "not applicable", was spent upon "Attending team meetings about curriculum development, etc." Thus, the cross-tabulation would shown whether the effect of teaching on a particular course had an effect upon the attendance at team meetings.

The SPSS-X package for this, required the following instructions to be typed into the computer in order to execute this requirement:

```
CROSSTABS    VARIABLES=COURSE(0,5)SUBJECTS TO EFFECT(0,6)
             TEAMMEETS TO LECTURE(0,4)/
             TABLES=COURSE BY SUBJECTS TO LECTURE
OPTIONS      3,4
STATISTICS   1,2,3
```

The print-out from this gave the following results:

Course	PCT	More Time	Same Time	Less Time	Not Appl	Row Total
YTS	No	24	12	6	7	49
	%	49.0	24.5	12.2	14.3	
CPVE	No	11	2	1	1	15
	%	73.3	13.3	6.7	6.7	
TVEI	No	6	1		1	8
	%	75.0	12.5		12.5	
BTEC Found	No	8	5		1	14
	%	57.1	35.7		7.1	
Other	No	2	3	1		6
	%	33.3	50.0	16.7		
Column Total		51	23	8	10	92
		55.4	25.0	8.7	10.9	100.0

This, then, shows how the 92 teachers who responded to the question (1 failed to respond) were distributed between the courses and the amount of time they considered was spent at team meetings compared with other courses, both in terms of actual numbers and percentages. It would, however, now be important to consider if these results happened by chance or not. Thus, a statistical test would need to be applied to the results. As both the course and the attendance at team meetings, (the two variables) are independent, it was decided to use the CHI-SQUARE test for discrete categories to determine the significance between the two groups of variables. The chi-square statistic shows the significance of the observed results compared with those expected other than by chance.

Siegel[78] gives the following example of a chi square test. He wished to test whether tall and short persons differ with respect to leadership qualities. The table below shows the observed frequencies with which 43 short people and 52 tall people are categorized as "leaders", "followers" and as "unclassifiable."

	Short	Tall	Total
Leader	12	32	44
Follower	22	14	36
Unclassifiable	9	6	15
Total	43	52	95

The null hypothesis would be that height is independent of leader-follower position, i.e. that the proportion of tall people who are leaders is the same as the proportion of short people who are leaders. With such a hypothesis, the expected frequency for each cell may be determined. This is done by multiplying the two marginal totals common to a particular cell, and then dividing this product by the overall total of cases to obtain the expected frequency. Thus the expected frequency for the lower right hand cell in the above table is:

$$E_{22} = \frac{(52)(15)}{95} = 8.2$$

The table below gives the expected frequencies, shown in brackets, of each of the 6 cells for the data above.

	Short	Tall	Total
Leader	(19.9) 12	(24.1) 32	44
Follower	(16.3) 22	(19.7) 14	36
Unclassifiable	(6.8) 9	(8.2) 6	15
Total	43	52	95

The value of chi square is then calculated from the using the formula:

$$\text{Chi Square} = \text{Sum of } \frac{(\text{Observed} - \text{expected})^2}{\text{Expected}}$$

for the above table this becomes:

$$\frac{(12-19.9)^2}{19.9} + \frac{(32-24.1)^2}{24.1} + \frac{((22-16.3)^2}{16.3} + \frac{(14-19.7)^2}{19.7} + \frac{(9-6.8)^2}{6.8} + \frac{(6-8.2)^2}{8.2}$$

$= 3.14 + 2.59 + 1.99 + 1.65 + 0.71 + 0.59$

$= 10.67.$

It is obvious that if the observed frequencies are in close agreement with the exected frequencies, the differences will be small and the value of chi square will be small, and vice-versa. The larger the chi square value the more likely it is that the two groups differ with respect to the classifications. However, to make this easier, tables of critical values of chi square are published to indicate with a specified percentage as to how sure it is to accept or reject the hypothesis that is being tested. In the case above, from the published tables, the null hypothesis can be rejected with 99.9% certainty.

To return to the SPSS-X results of the pre-vocational survey, it is required to see if there is any certainty that there is no relationship between (a) the type of course upon which a teacher operates, and (b) the amount of time that he suggests that he spends at meetings. The null hypothesis is that there is no relationship between these two variables. The results are shown below.

Course	PCT	Less Time	Same Time	More Time	Not Appl	Row Total
YTS	No	24	12	6	7	49
	%	49.0	24.5	12.2	14.3	
	E%	47.1	52.2	75.0	70.0	
CPVE	No	11	2	1	1	15
	%	73.3	13.3	6.7	6.7	
	E%	21.6	8.7	12.5	10.0	
TVEI	No	6	1		1	8
	%	75.0	12.5		12.5	
	E%	11.8	4.3		10.0	
BTEC Found	No	8	5		1	14
	%	57.1	35.7		7.1	
	E%	15.7	21.7		10.0	
Other	No	2	3	1		6
	%	33.3	50.0	16.7		
	E%	3.9	13.0	12.5		
Column Total		51	23	8	10	92
		55.4	25.0	8.7	10.9	100.0

CHI Square	D.F.	Significance
10.54	12	0.57

Here, the significance is already calculated, so there is no need to make reference to the published tables. In order to be significant the value needs to be below 0.05. The significance

above is well in excess, so it can be accepted that the above values could have occurred by chance.

The intention, using the chi square statistic, is to scan the calculated values to see which of the results HAVE NOT occurred by chance.

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Chapter 8

RESULTS

8:1 - Introduction

It has already been described in Chaper 7 how the study was organised and how the questionnaires were distributed. The results of the sample are explained in the following paragraphs. The first set of questions in the questionnaire (numbers 1 to 8) involved the bio-data of the sample, questions 9 and 10 asked how the pre-vocational course and its decisions were communicated to teachers, question 11 asked questions about decision making, and question 12 asked the amount of teacher time that was spent upon various aspects of the pre-vocational curriculum.

8:2. Bio-data of Sample

8:2:1. Type of Pre-Vocational Course

Question 1 of the questionnaire asked teachers in what pre-vocational course the teachers were mainly involved. Fig. 25 shows that the main course taught, with over 50%, was YTS courses; with almost equal numbers (16% and 15% respectively) teaching on CPVE and BTEC courses, and 8% teaching on TVEI courses. Although this, at first glance,

looks a skewed distribution, YTS is by far the most popular pre-vocational course in the region and TVEI is in its initial stages in many of the schools.

6 of the respondents were involved in "other" courses. Those who stated what this was (as requested) said that they were City and Guilds 365 and CDT Technology.

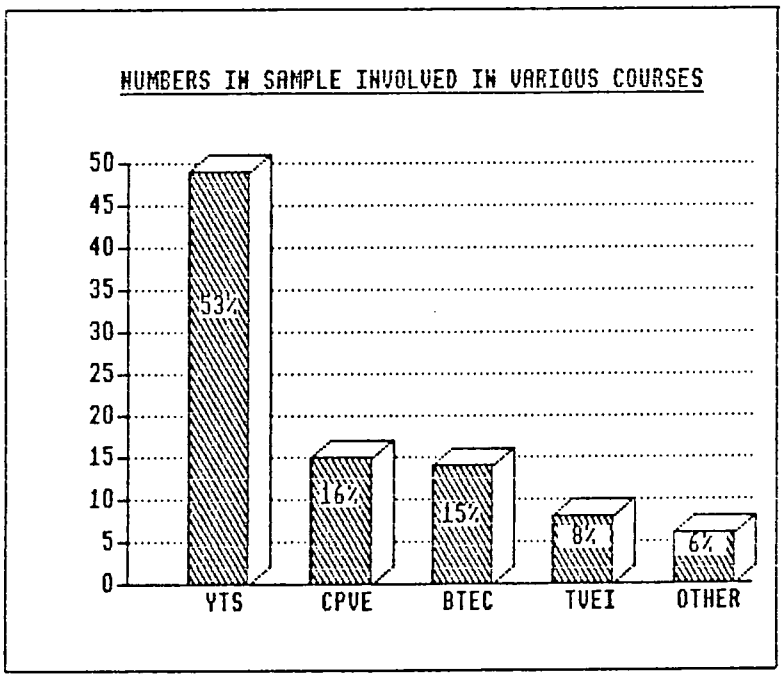

Fig. 25 - Involvement of Sample in Courses..

8:2:2 - Involvement in Course

Question 2 asked teachers what sort of involvement they had in pre-vocational courses; whether it was teaching, or administration, or a mixture of teaching and administration. The results (see Fig. 26) show that the majority of the

Teaching Only	25 replies (27%)
Administration Only	1 reply (1%)
Teaching and Administration	66 replies (71%)

Fig 26 - Course involvement of the Sample

sample (71%) were involved in both teaching and administration. This must be to the advantage of the course members in that teachers are involved in all aspects of the course (see page 91).

8:2:3 - Special Responsibilities

The third question asked teachers if they had any special responsibilities with pre-vocational courses and, if they had, to state what these were. 58% replied that they had special responsibilities and 40% said that they had not. Not all of the 58% who said that they had special responsibilities stated what these were. Those who did however, said that there responsibilities were:

- Course Tutor	27 teachers
- Work Placement Officer	7 teachers
- Course co-ordinator	5 teachers
- Group tutor	1 teacher
- Links with employers	1 teacher
- Counsellor	1 teacher
- Member of CPVE Review Group	1 teacher
- Regional Assessor for RSA Integrated Scheme	1 teacher
- Staff Induction	1 teacher

Thus, the majority of the responsibilities involved those of being a course tutor (see page 81) but, interestingly, 7 of the teachers had responsibility for work placement and one with links with employers. Thus, an important aspect of the

pre-vocational courses, that of planned work experience and on-the-job training, is being carried out.

8:2:4 - Length of Involvement

Question four asked how long the teachers had been involved in pre-vocational courses. Fig. 27 shows how the sample responded to this question.

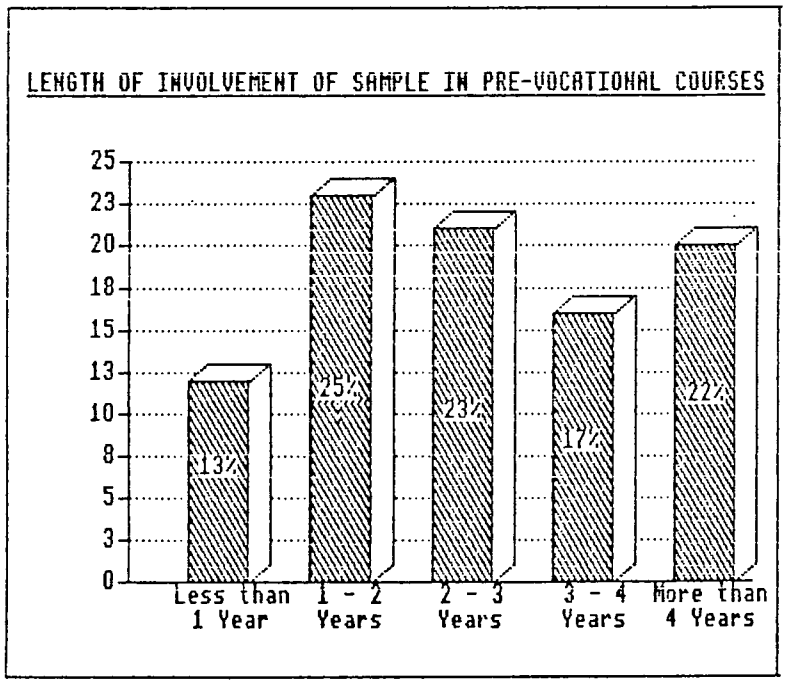

Fig. 27 - Length of Involvement of Sample in Pre-Vocational Courses

This shows quite an even distribution between the categories but the smallest category was those with less than one year's involvement. This is advantageous for the study as the sample will have experience upon which to draw to respond to the subsequent questions. It might also give an indication of the lack of movement in the 14-19 sector of education with few new teachers coming into the profession.

8:2:5 - Grade of Teacher

It has already been said that questionnaires were distributed to both FE and School teachers. The percentage returns from each of these categories were:

FE Teachers - 87%

School Teachers - 13%

Question 5 asked the teachers to indicate their grade. Fig. 28 shows the teachers response.

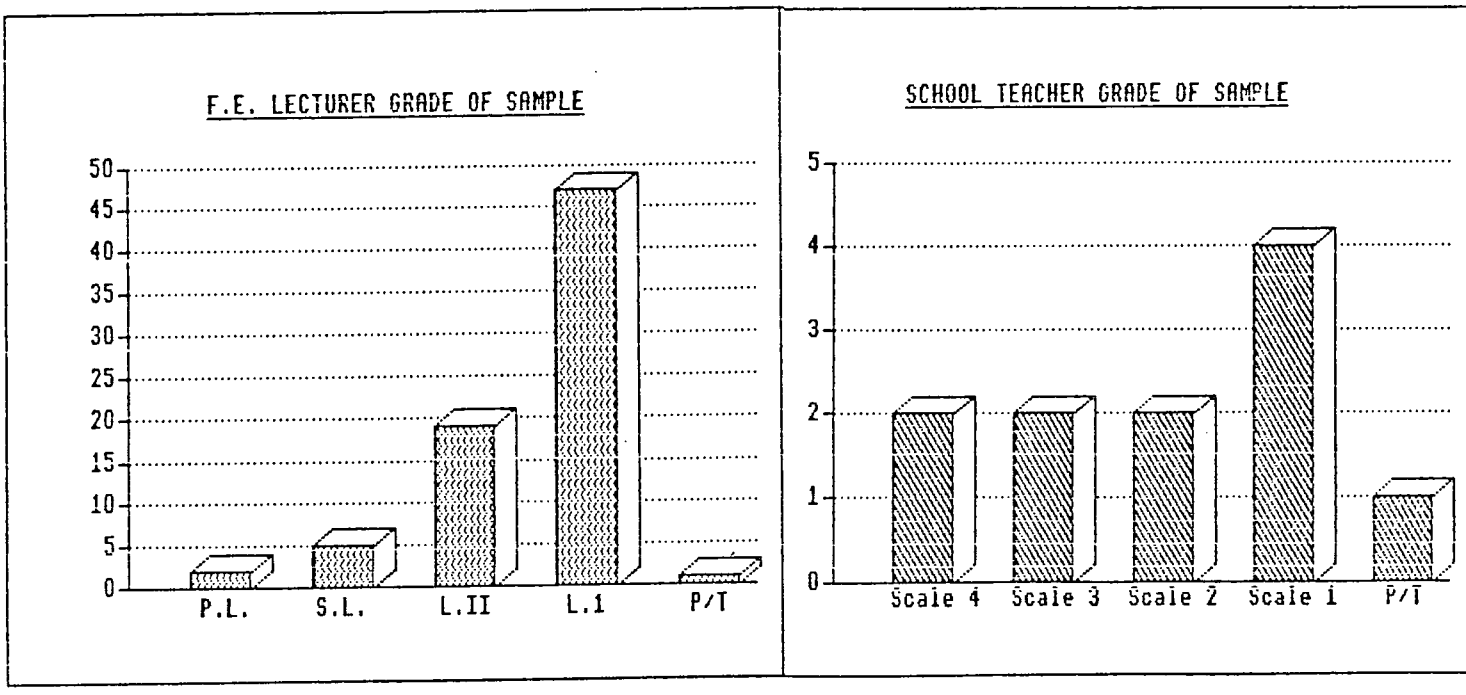

Fig. 28 - Grade of Teacher

This shows that the majority of the teachers (over 60%) are at the lowest grade - this even though the majority had specific responsibilities related to pre-vocational courses. This predominance of lower grade teachers is not surprising

in that, both in schools and FE, pre-vocational education does not attract the highest standing; it rarely attracts promotional posts and, being a relatively new curriculum development, requires hard work to operate successfully.

8:2:6 - Teaching Subject

Question six asked respondents to indicate the subject in which most of their teaching takes place. Fig 29 shows the results of this question with the largest areas being

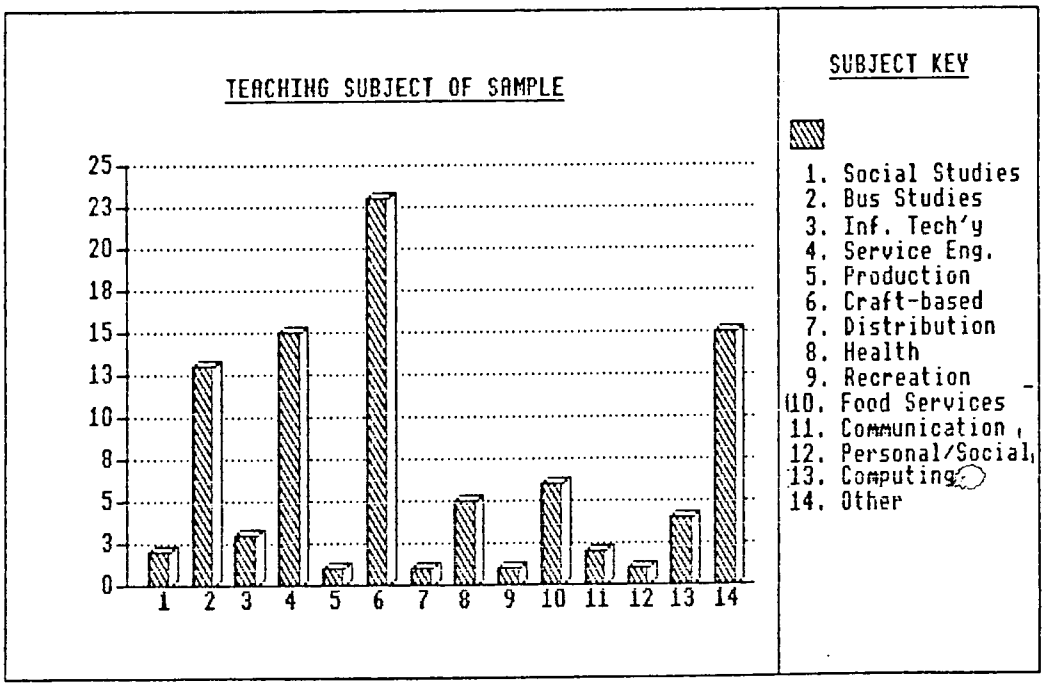

Fig. 29 - Teaching Subject of Sample

Business Studies (13 teachers - 14%), Service Engineering (15 teachers - 16%), and Craft-based subjects (24 teachers - 25%). Thus, in the histogram, areas 2, 4 and 6 were the most popular. This reflects the employment possibilities within

the region with far more employment possibilities occurring in these areas as opposed to health, recreation and food services.

14 respondents indicated "other" as their teaching subject. These who stated what their subject was indicated it as:

Agriculture	- 3 teachers	Mathematics	- 1 teacher
Science	- 2 teachers	Electronics	- 1 teacher
Rural Studies	- 1 teacher	Media Service	- 1 teacher
Technology	- 1 teacher	Hairdressing	- 1 teacher

Some of these are very specific (e.g. rural studies and media services), mathematics and science could be considered as core skill areas, but the others are minority areas.

8:2:7 - Type of Institution

Question 7 asked teachers to indicate the type of institution in which they worked. Fig. 30 shows the numbers of respondents who work in the various types of institution and indicates that the majority of the teachers worked in an FE institution (63 - 68%).

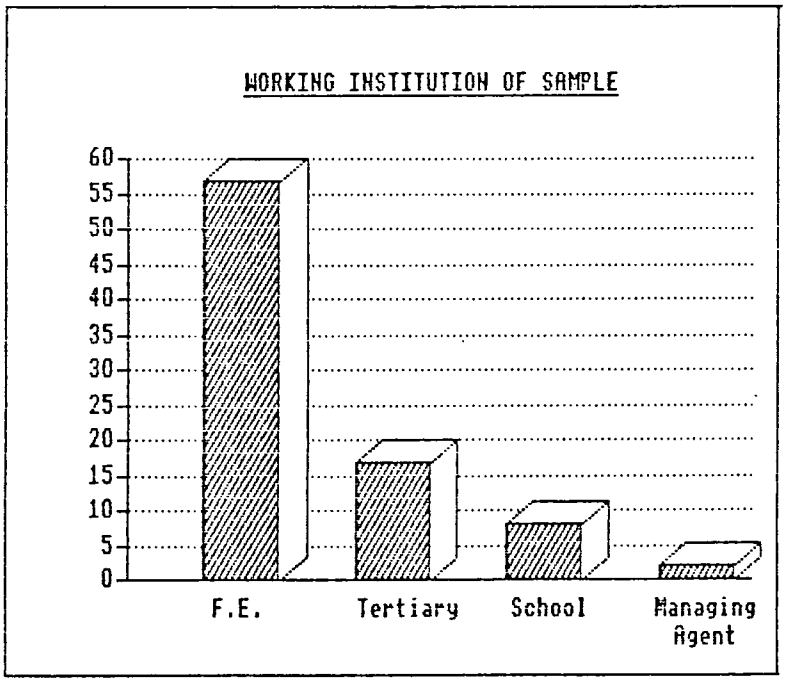

Fig 30 - Institution in which Teachers in Sample Work

This reflects the distribution of pre-vocational education within the nothern region as indicated by Davies[79] with the majority of off-the-job work being completed in colleges with the 16-19 age group. These are either FE or Tertiary colleges. Schools, on the other hand, deal with the 14-16 age group with TVEI or the post 16 age group in the "New Sixth Form". However, these post 16 students are mainly limited to CPVE courses as YTS is not available in schools, TVEI mainly deals with 14-16 ages, and BTEC has not made large inroads in schools.

8:2:8 - Management Structure

The final question in this section asked respondents to indicate whether the management structure of the institution

in which they worked was departmental or matrix. The results show :

Departmental - 62 teachers (67%)

Matrix - 31 teachers (33%)

which approximately reflects the comparative numbers of teachers within the region who work in departmental and matrix structures. Of the 18 FE colleges in the North-East region, only two have true matrix management structures. As suggested in Chapter 5, it is the smaller institutions who move to a matrix structure and this has been reflected in the numbers above.

8:3-Communication Channels

The second set of questions in the questionnaire (after the bio-data questions) related to how pre-vocational courses were introduced to the sample and how decisions about their pre-vocational courses were communicated to them (questions 9 and 10 in the questionnaire).

How the teachers responded to course introduction is shown in Fig. 31. The histogram shows that approximately equal numbers suggested pre-vocational courses were introduced (a) through their presentation by senior staff, (b) working as a member of a team on the new courses, and (c) working with colleagues already teaching on the courses.

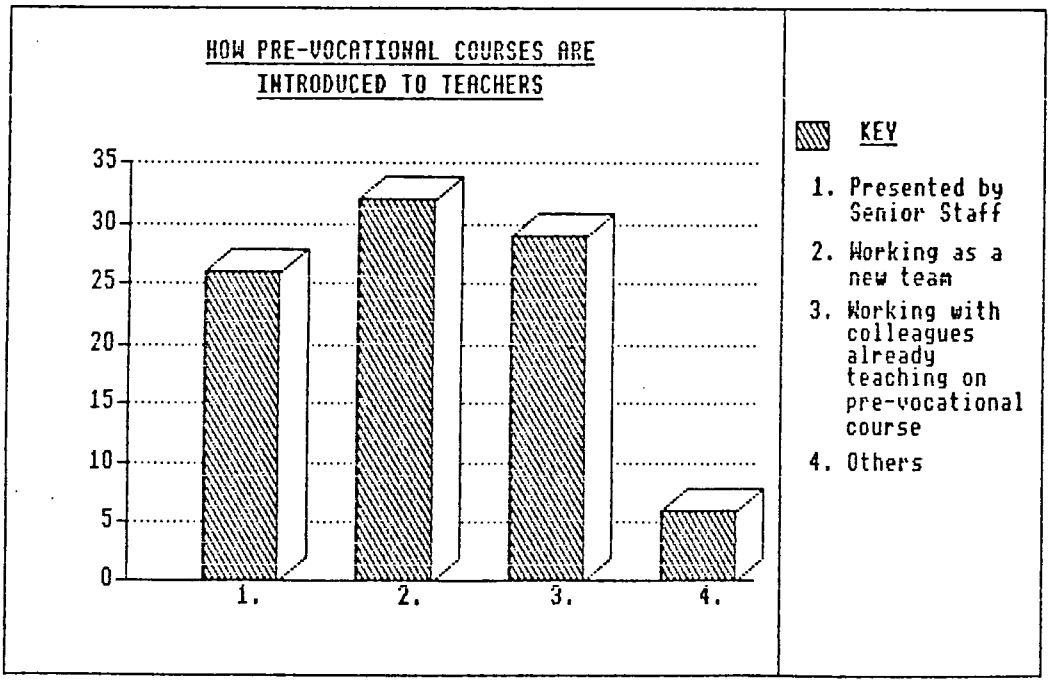

Fig. 31 - Communication of Course Aspects

Fig 32 shows a histogram of how teachers responded to question 10 - "How Course Decisions are Communicated to Them". The results show that the main way that these decisions are communicated is through a DEMOCRATIC process at meetings (24 teachers - 24%), but that almost as many (21 teachers - 23%) suggested that an AUTOCRATIC process was used by senior staff verbally telling them of decisions that had been made.

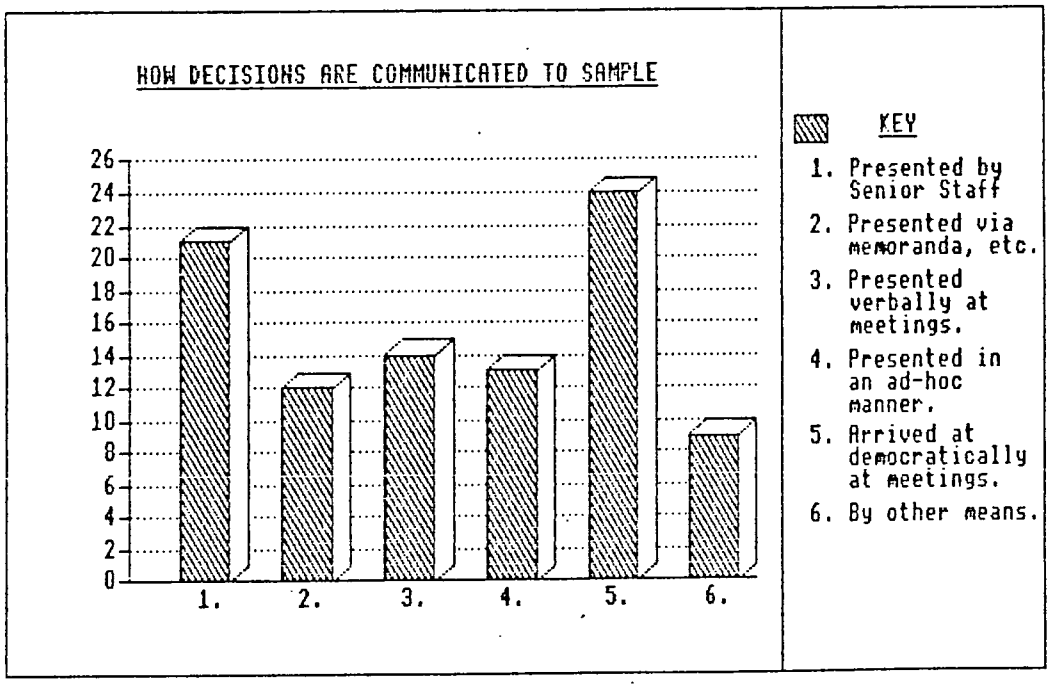

Fig 32 - Methods of Communication of Course Decisions.

It will be seen from the histogram that 8 of the respondents suggested that "other" means were used to communicate course decisions. Most of these suggested that no single method was used but that a combination of methods were appropriate for

their situation. One respondent suggested that "it depends upon the urgency of the change" as to what method would be used!

8:4 - Decision Making.

8:4:1 - Manner in which Decisions are Made

Question 11 related to the way that decisions about the pre-vocational courses are taken. It presented 6 options from autocratic, to democratic and laissez-faire and invited teachers to indicate how decisions are reached about 14 different nominated course aspects. The course aspects were:

1. Course Administration (11:1 - 11:6)
   - allocation of staff to subjects
   - spending of course budget
   - allocation of rooms
   - purchase of resources
   - course publicity
   - enrolments
2. Course Delivery (11:7 - 11.11)
   - sequencing of topics
   - use of teaching strategies
   - use of teaching resources
   - design of teaching materials
3. Course Evaluation (including student assessment) (11:12 - 11:14)
   - assessment of student work
   - decisions about overall student certification
   - evaluation of overall effectiveness of the course.

The six options that were presented were as follows:

(a) Autocratic
- Imposed by an External Body,
- Imposed by Senior Staff from own department,
- Imposed by Senior Staff from another department.

(b) Democratic - Decided by the Course Team

(c) Laissez-Faire - Decided by oneself.

8:4:2 - How Decisions are made about Administration, Delivery, and Course Evaluation.

The results from the sample are shown by cumulative barcharts in Figs. 33 - 35. It will be seen in these barcharts that not all of the bars summate to the 93 responses. This is because some of the teachers thought that a particular aspect was inapplicable and indicated this. Particularly, decisions about "additional studies" were considered not applicable by 30 of the teachers and, to a lesser extent, the manner in which the course budget was spent was considered not applicable by 8 teachers.

Fig 33 shows how decisions are made about the course administration aspects. From the barcharts it can be seen

that most of the aspects are decided very autocratically with the largest sections showing that these decisions are made by senior staff.

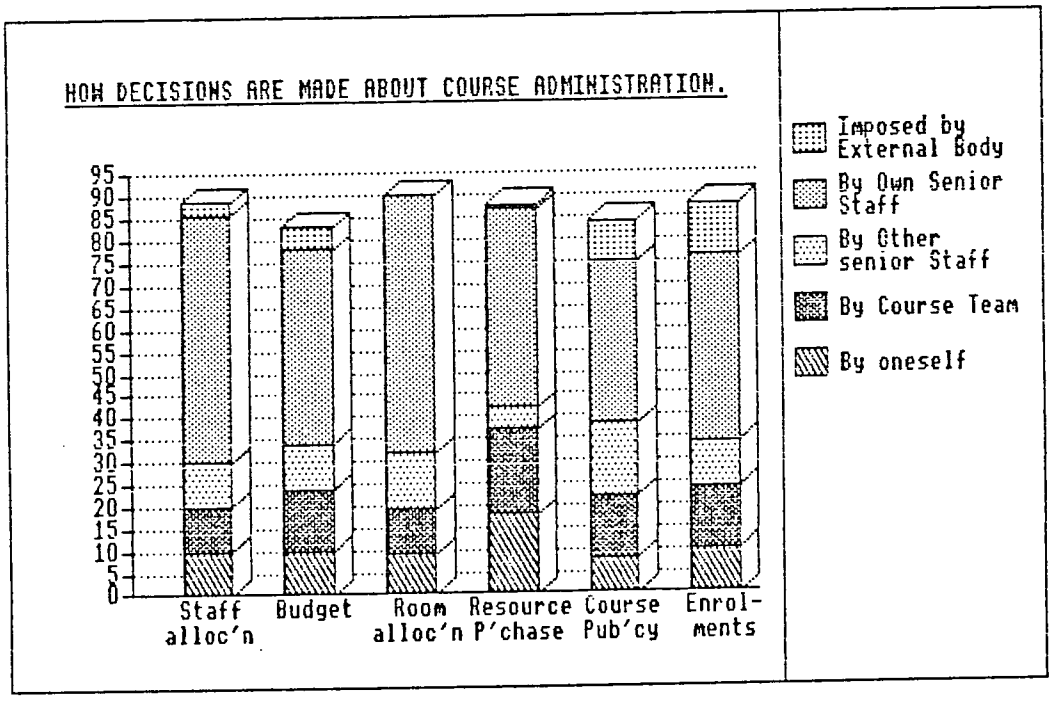

Fig. 33 - Making Decisions about Course Administration

Fig 34 shows how decisions are made about the course delivery aspects. This shows the reverse of the course administration; suggesting that most of the decisions are made in a laissez-faire manner. Apart from decisions about additional studies, decisions are mainly made by the teachers themselves.

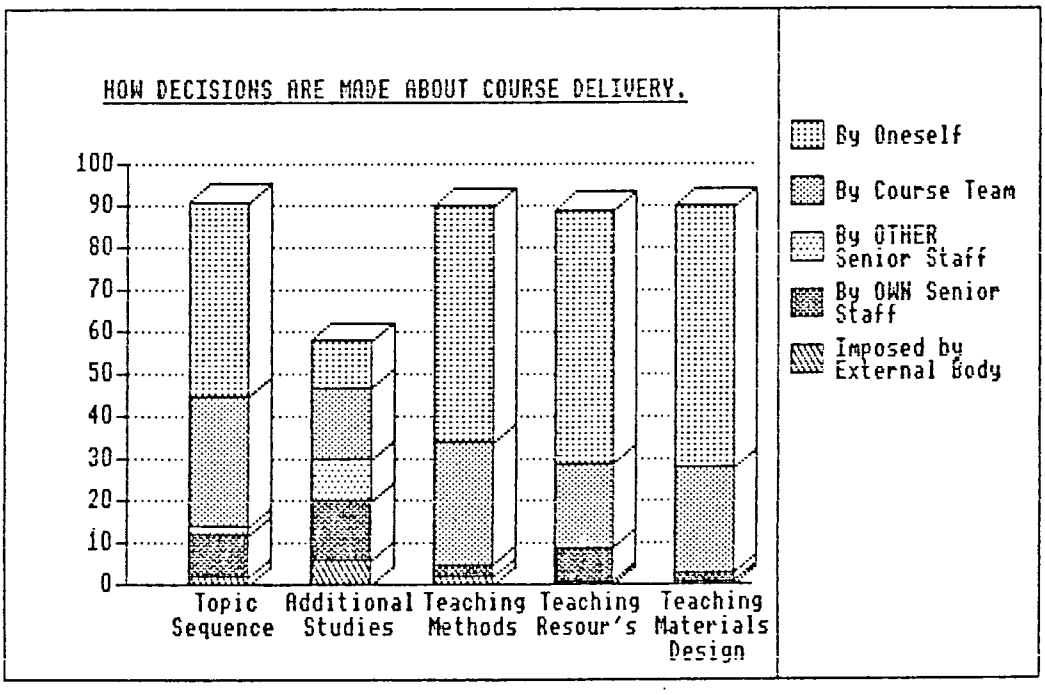

Fig. 34 - How Decisions are made about Course Delivery

Fig. 35 is about student assessment and course evaluation. It shows that student assessment is completed in a laissez-faire manner but that course evaluation (student certification and evaluation itself) is made through a democratic process by the course team.

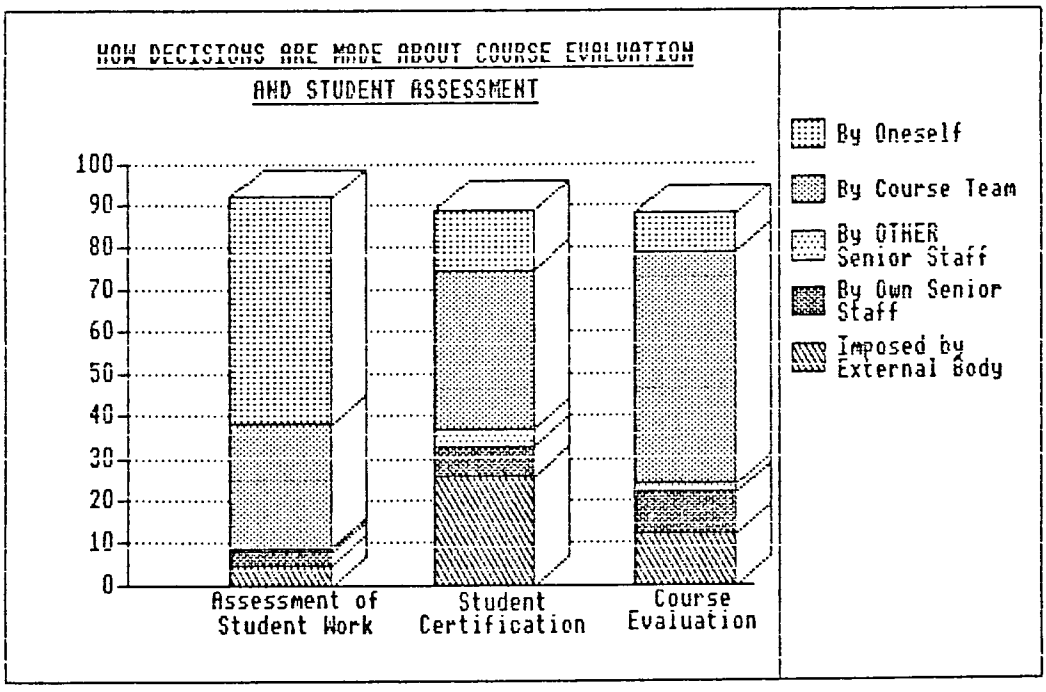

Fig. 35 - How Decisions are made about Course Evaluation

8:5 - Time Spent on Aspects

The final question in the questionnaire (No. 12) asked about the time that was spent upon various curriculum aspects. It asked respondents to consider a total of 37 curriculum aspects and, to consider for each aspect, whether more, less or the same amount of time was spent upon them in pre-vocational courses compared with other courses that were taught. It was recognised that not each of the aspects would be applicable to each of the courses so, a fourth category of "Not Applicable" was included.

The thirty seven questions can be sub-divided into the six categories shown below. Each aspect indicates the question number that was used on the questionnaire (see Appendix 1).

1. Curriculum Planning:
   - Q 1 - Attend Team meetings
   - Q 2 - Discuss course with employers
   - Q 3 - Discuss course with teachers from other colleges or careers officers
   - Q 6 - Work as a team member to modify the course
   - Q28 - Read books and journals concerned with teaching
   - Q29 - Attend course planning meetings
   - Q33 - Consult employers about the course they would wish to see provided
   - Q35 - Attend course meetings

2. Preparation for Teaching:
   - Q 7 - Make visual aids
   - Q12 - Negotiate the curriculum with students
   - Q25 - Participate in team teaching
   - Q32 - Prepare handouts/worksheets for students

3. Use Teacher-Centred Methods:
   - Q36 - Dictate notes to students
   - Q37 - Present a lecture to a group of students

4. Use Student-Centred Methods:
   - Q10 - Use problem solving and project work
   - Q14 - Give assistance to students outside class time
   - Q15 - Advise students about further opportunities
   - Q23 - Use role-play, etc.
   - Q24 - Hold small group tutorials
   - Q26 - Conduct discussion sessions
   - Q30 - Allocate time for private study

5. Adopt the important aspects of the Pre-Vocational Curriculum:
   - Q 8 - Use experience-based learning
   - Q 9 - Associate learning with the workplace
   - Q11 - Develop personal and social skills
   - Q12 - Use contract learning
   - Q13 - Use guidance techniques
   - Q18 - Involve students in community work
   - Q19 - Use residential experience
   - Q20 - Concentrate upon communication skills
   - Q21 - Use common core teaching and learning

6. Student Assessment and and Course Evaluation:
   - Q 4 - Discuss assessment methods with colleagues
   - Q 5 - Discuss assessments with students
   - Q16 - Use modular course design and graded assessments
   - Q17 - Use profiling techniques
   - Q22 - Invite comments from students about the course
   - Q27 - Mark test papers or internal examinations
   - Q31 - Maintain records of students work.

The results about each of the areas are shown in the histograms in Figs 36 - 41. with the numbers responding in each of the categories.

8:5:1 - Time Spent on Planning

Fig 36 shows the numbers of the sample who responded in the four categories ("more time", "same time", "less time", or "not applicable") for each of the aspects of curriculum planning.

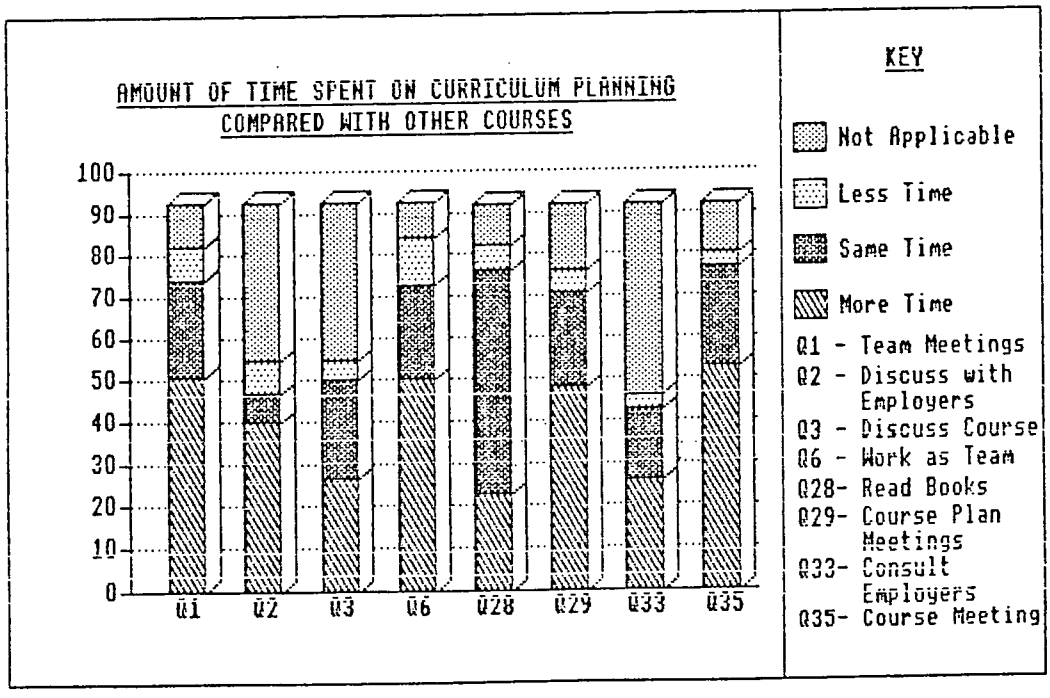

FIG. 36 - Time Spent on Pre-Vocational Curriculum Planning compared with Other Courses

In most of these categories "more time" is spent upon them apart from:

- Question 33 - consultation with employers where 44 respondents (47%) considered that this was "not applicable", and

- Question 3 - discuss course with teachers from other Colleges where 37 respondents (40%) considered that this was "not applicable".

The greatest amount where "more time" was spent upon an aspect was considered to be attending team meetings about curriculum development (question 1) and attending course meetings (question 35).

8:5:2 - Time Spent on Preparation for Teaching.

Fig 37 shows how the sample responded to the questions about the amount of time spent upon Preparation for Teaching. Although the sample considered that more time was spent upon

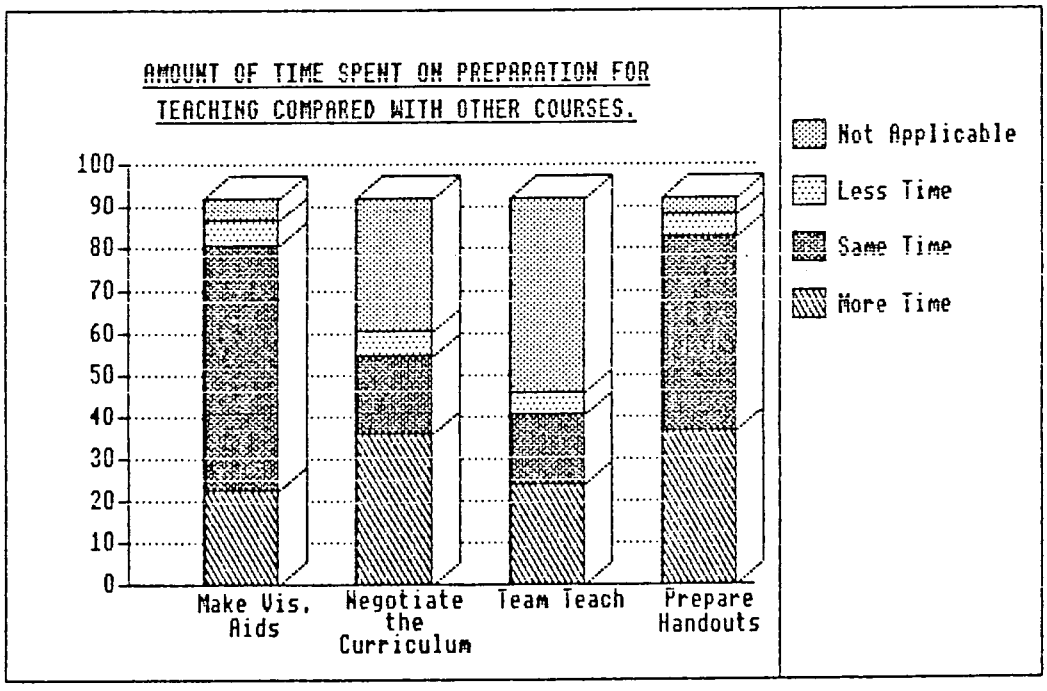

Fig. 37 - Time spent upon Praparation Aspects of Pre-Vocational Courses compared with Other Courses

most of the aspects, "negotiating the curriculum with students", and "preparing handouts and/or worksheets", both received 36 responses for more time; however, 30 respondents (32%) considered "negotiating the curriculum" was inappropriate to their course preparation! The table below shows the actual percentages for each of the aspects.

Preparation Aspect	More Time	Same Time	Less Time	Not applicable
Making Visual Aids	25%	62%	7%	6%
Preparing handouts/worksheets	40%	50%	5%	5%
Negotiating the Curriculum	39%	20%	7%	34%
Team Teaching	26%	18%	5%	51%

8:5:3 - Time Spent on Teacher-Centred Methods

Two questions, numbers 36 and 37, asked about the time spent in pre-vocational courses upon teacher-centred approaches compared with other courses that the teachers taught. Fig. 38 shows that, for both "dictating notes" and "giving lectures", only 5% for each aspect considered that MORE TIME was spent upon these aspects.

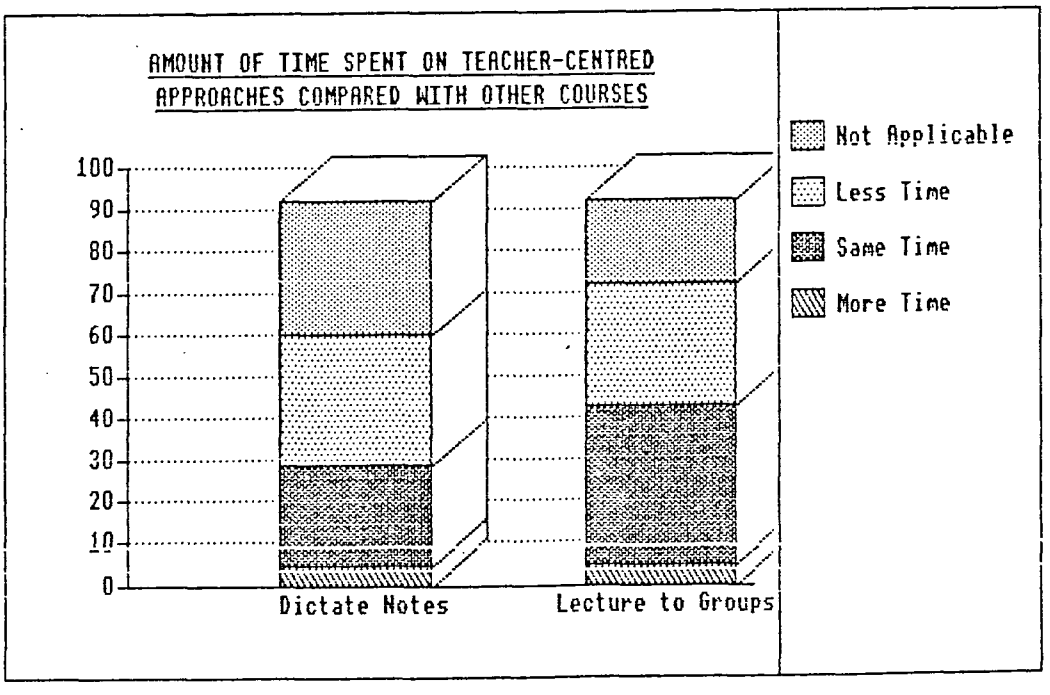

Fig. 38 - Time Spent on Teacher-Centred Approaches with Pre-Vocational Courses compared with Other Courses

8:5:4 - Time Spent on Student-Centred Methods

The next set of questions related to the use of student-centred approaches in pre-vocational courses. Fig. 39 shows that the sample considered that all of the aspects were allocated "more time" compared with other courses.

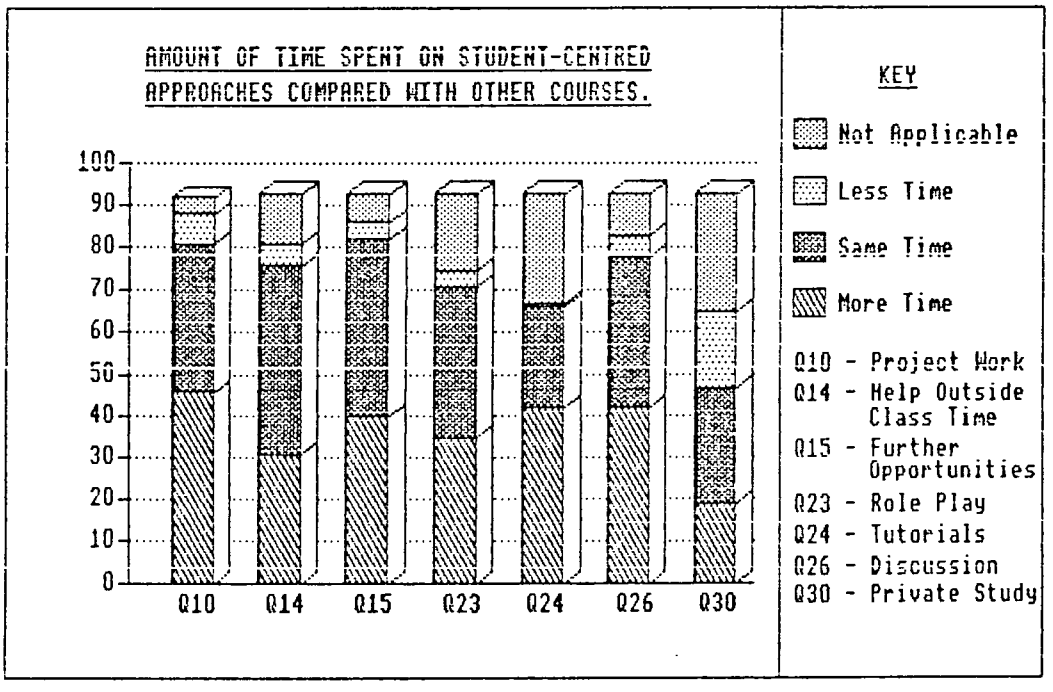

Fig. 39 - Time Spent on Student-Centred Approaches with Pre-Vocational Courses compared with Other Courses

If the categories "more time" and "same time" are summated, it can be seen from the histograms in Fig. 39 that only private study received less than 50% of responses; all of the other aspects received 70% or more.

8:5:5 - Time Spent on Pre-Vocational Curriculum Aspects

The questionnaire identified nine important pre-vocational curriculum aspects, ranging from "the use of experiential learning" to "the use of contract learning" and "teaching to a common core". The questions again asked the respondents if more time was spent upon these compared with other courses that were taught. Fig 40 shows the numbers from the sample who responded to each of the nine aspects.

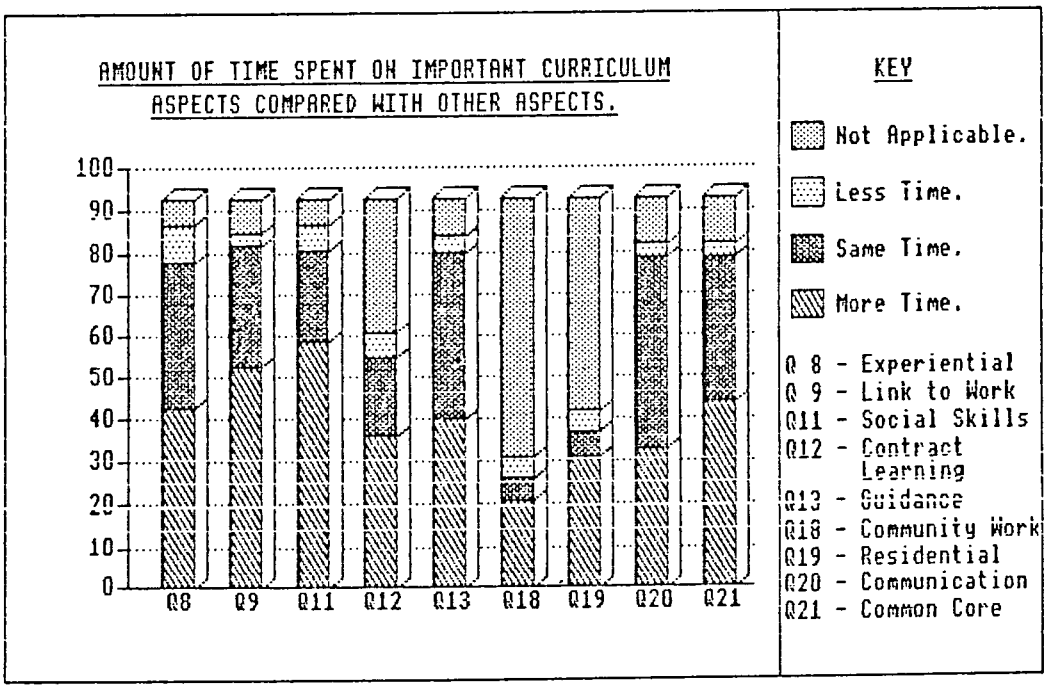

Fig 40 - Time Spent upon Important Pre-Vocational Curriculum Aspects compared with Other Courses

It can be seen from the histograms that ALL of the aspects had "more time" spent upon them. Again if "more time" and "same time" are summated, the average amount of time is 75%

or above. It is worth noting from the histograms, however, that community work and residential experiences were considerd "not applicable" by more than 50% of the respondents.

8:5:6 - Time Spent on Assessment and Evaluation

The final set of questions related to assessment of student work and course evaluation. Fig. 41 gives an overview of how the sample responded.

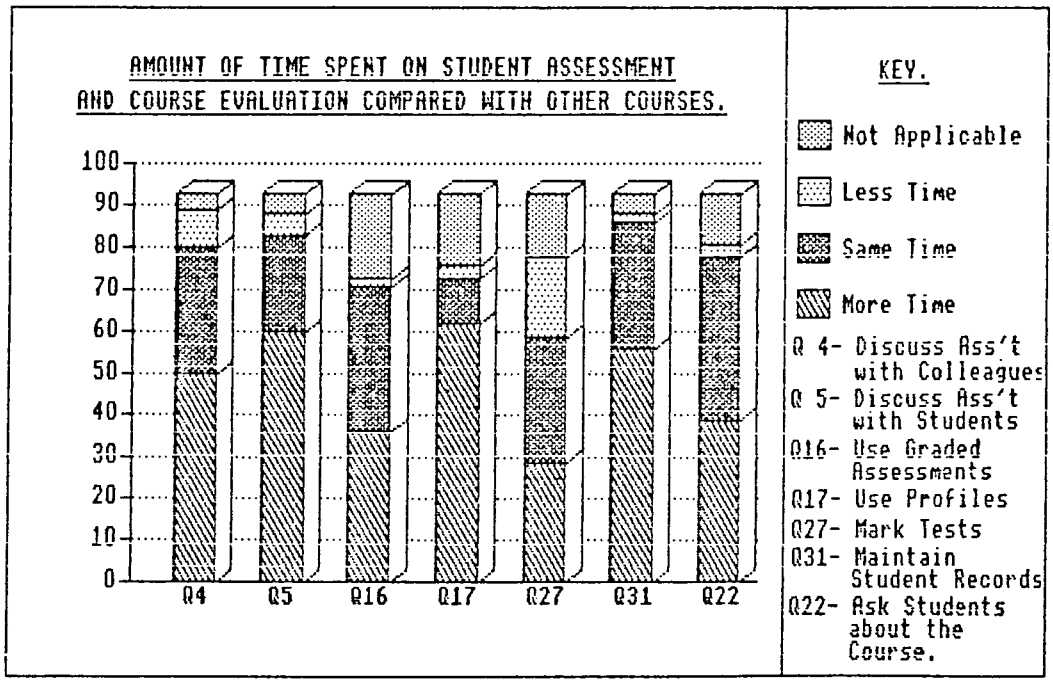

Fig. 41 - Time Spent on Student Assessment and Course Evaluation in Pre-Vocational Courses compared with Other Courses

More time was particularly considered to be spent upon

profiling and the associated discussion about assessment with students. Quite a high proportion (20%) considered that "less time" was spent on marking tests, although 31% considered that "more time" was spent upon this aspect.

8:6. Cross Tabulation

8:6:1 Tabulation of Management Structure and Decision Making

The SPSS-X package was used to cross tabulate the departmental/matrix management structure of institutions with the autocratic/democratic/laissez faire - manner in which decisions are made. The results are shown in Fig. 42. Here the percentage of the responses as to whether decisions about the various aspects are made autocratically, democratically, or in a laissez-faire manner are shown. The percentages do not summate to 100% as, for the sake of clarity, some of the minor categories have been omitted.

1 = Autocratic 2 = Democratic 3 = Laissez-Faire	Matrix			Departmental		
	1	2	3	1	2	3
COURSE ADMIN						
Subjects	66%	6%	6%	64%	13%	13%
Budget	53%	16%	13%	45%	15%	10%
Rooms	50%	23%	1%	70%	5%	10%
Purchase	50%	23%	20%	48%	20%	20%
Publicity	50%	17%	3%	35%	15%	11%
Enrolments	60%	13%	10%	38%	16%	11%
COURSE DELIVERY						
Topic Sequence	20%	33%	43%	7%	34%	53%
Add'l Studies	30%	7%	13%	8%	25%	11%
Use of Methods	-	37%	60%	5%	29%	61%
Use of Resources	10%	30%	60%	8%	18%	70%
Material Design	3%	33%	63%	2%	24%	70%
COURSE EVAL'N						
Student Ass't	3%	33%	53%	3%	30%	60%
Student Cert'n	3%	50%	17%	10%	37%	15%
Course Eval'n	17%	60%	7%	8%	60%	8%

Fig. 42 - Management Structure vs Decision Making

The table shows that there is little difference between the two types of structure in the way that decisions are taken. For administrative aspects the decisions are mainly autocratically made; for course delivery aspects decisions are mainly made in a laissez-faire manner; for student assessment and course evaluation, decisions are mainly made democratically.

8:6:2 Tabulation of Management Structure and Time Spent on Pre-Vocational Curriculum Aspects

With the SPSS-X package question 8 (management structure of institution) was cross tabulated with question 12 (the amount of time that was spent upon various pre-vocatonal curriculum aspects compared with other courses that the respondents taught). On each of these aspects, as can be seen in Appendix 1) respondents were asked whether they spent "more time", "same time", "less time" or whether the aspect was "not applicable". In Fig. 43 below the "more" and "same" time have been summated in order to show comparisons between the two types of management structure. The barcharts show the percentage of the total that indicated "more" or "same" time had been spent upon the aspects. The lower part of the barchart shows the percentage from the matrix structure institutions and the upper portion, departmental structure. Thus, if equal percentages were indicated, the two portions would be equal (i.e. at 50% each).

It can be seen from the charts that, in all except three cases, the matrix structure section is greater than the 50% level. Hence, in almost all cases, the percentage from MATRIX structure institutions considered that they spent more or same time on the aspects compared with other courses. The full results of this are shown in Appendix 2.

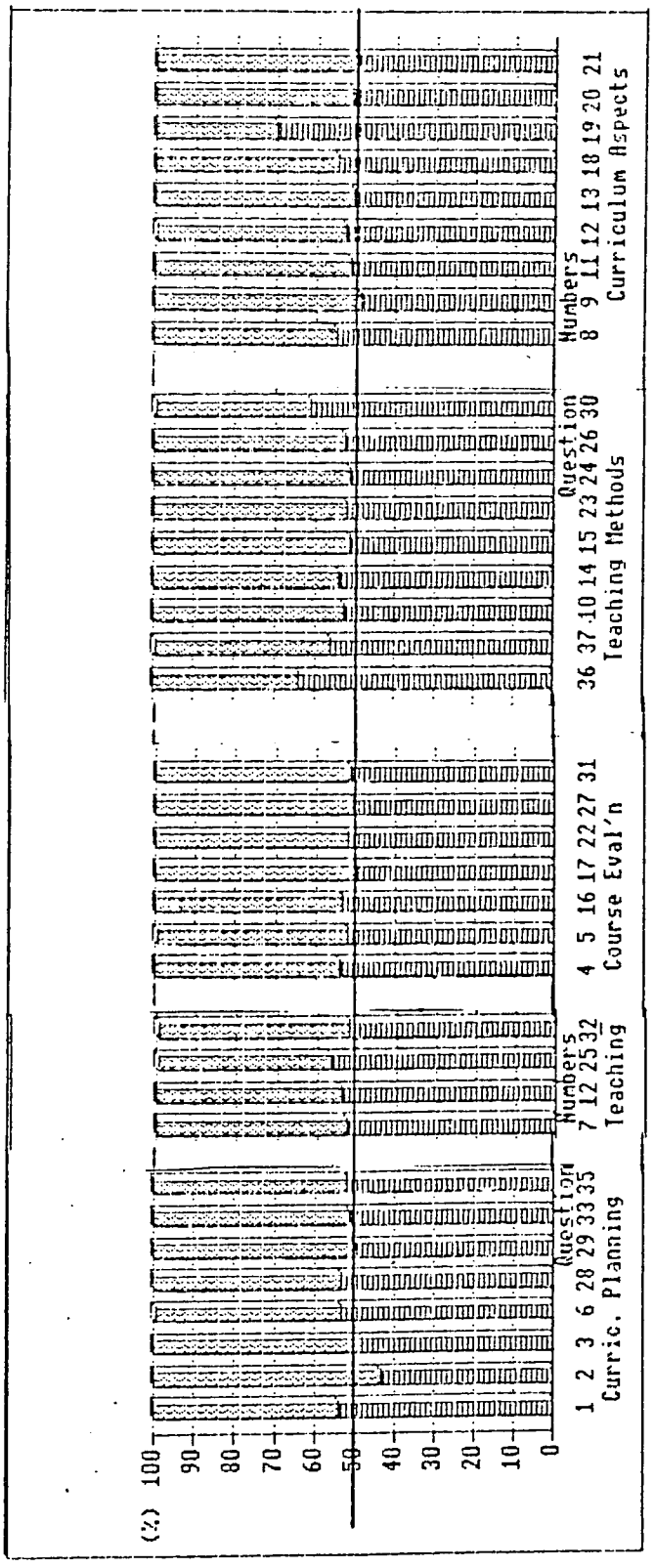

Fig. 43 - Comparison between Matrix and Departmental Management Structures showing when More Time is Spent on Pre-Vocational Curriculum Aspects

8:6:3 Tabulation of How Course Introduced with Time Spent on Pre-Vocational Curriculum Aspects

A cross tabulation was made between Question 9 (The manner in which the course was introduced to teachers) and some elements of Question 12 (the time spent on pre-vocational curriculum elements). Fig. 31 (page 132) has already shown how the sample responded to Question 9 with almost equal numbers having the course introduced:

(a) autocratically by senior staff,
(b) democratically through working as a member of a team, and
(c) in a laissez-faire manner working with colleagues.

For each of the nine main pre-vocational curriculum elements, respondents were asked to indicate whether they spent "more" time, "same" time, "less" time, or whether for their course the element was "not applicable". In order to make a comparison between them, the more and same time were summated and shown as a percentage of the whole who responded. i.e. if, from the autocratic introduction the sample responded:

More time	=	39%
Same time	=	42%
Less time	=	12%
Not applicable	=	8%

Thus, 39% and 42% were summated to give a total of 81% who allocated more or the same amount of time to this element. This summation was completed for each of the elements. Fig. 44 compares autocratic and democratic introduction of the course with the amount of time the sample spends upon pre-vocational curriculum elements with the barcharts showing the summated values for each element.

The results show that, in every case, more time was spent on the aspects when the course was introduced in a democratic manner (i.e. working as a team member) than when the course was introduced autocratically through senior staff. The greatest increase is shown in question 12 ("negotiate the curriculum with students and use contract learning"); when the course has been

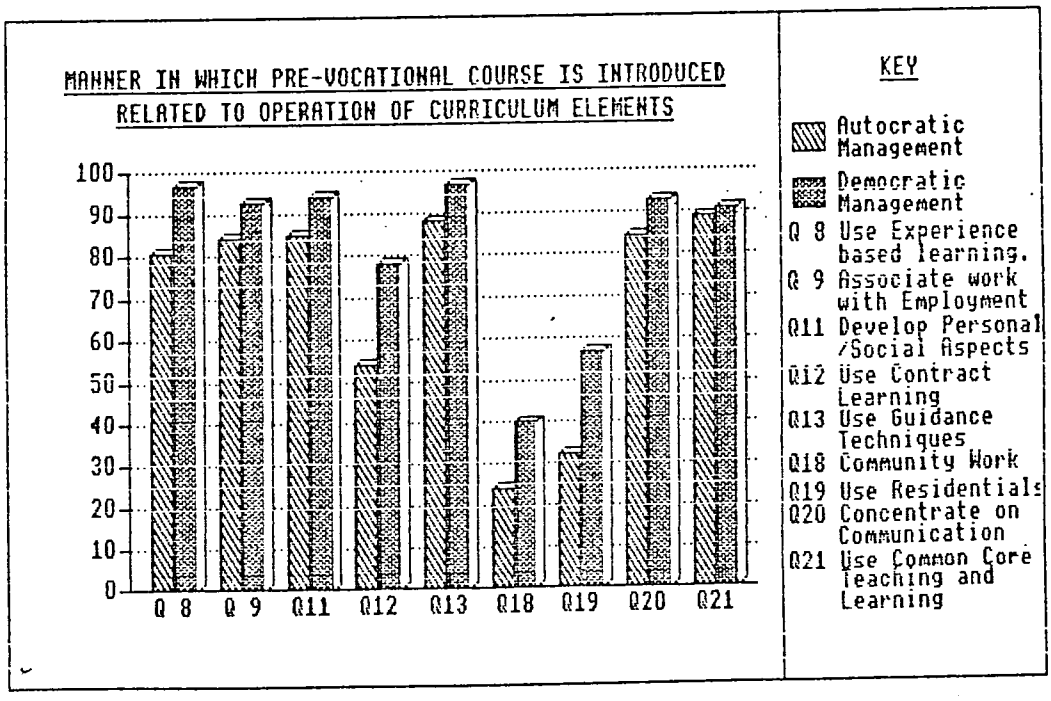

Fig 44 - Autocratic/Democratic Course Introduction

introduced autocratically 54% of the sample used this aspect "more" or the "same" amount of the time, on the other hand when the course was introduced in a democratic manner 78% of the sample used the aspect "more" or the "same amount of the time.

Fig. 45 compares the democratic course introduction with, this time, a laissez-faire introduction - where the course was introduced through working with colleagues who are already working on the course. Again, all except one of the bars are larger when the course has been introduced democratically.

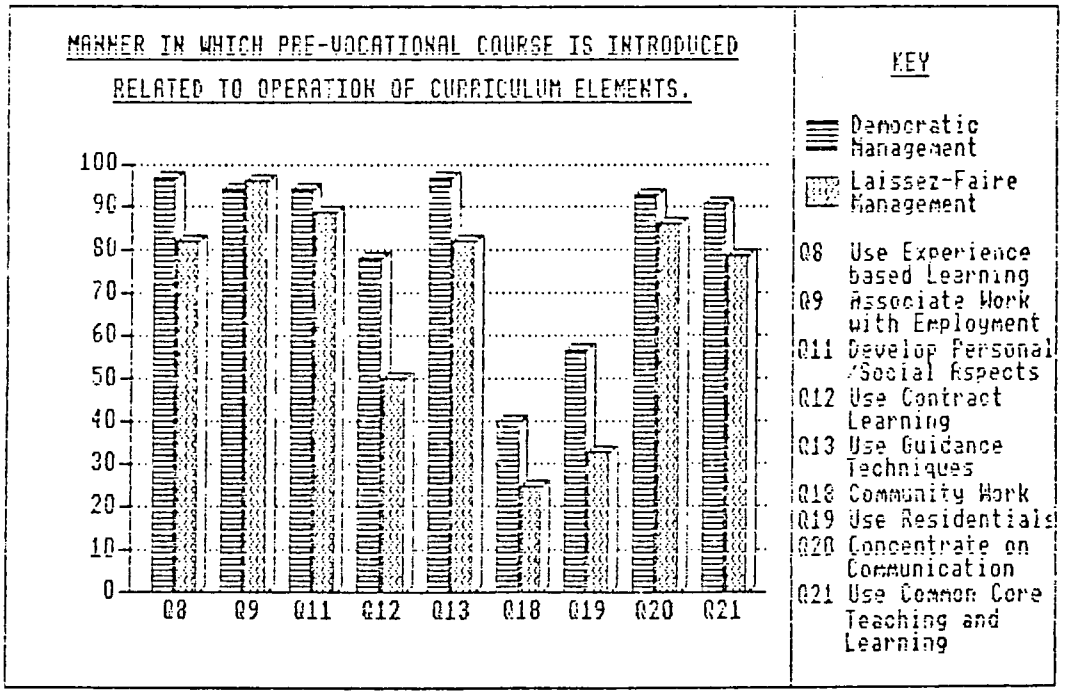

Fig. 45 - Democratic/Laissez-Faire Course Introduction

The exception is with question 9 ("Associate learning with that in the workplace"). The relative percentages for this curriculum element are:

Course introduced democratically = 94%

Course introduced in a Laissez-Faire manner = 96%

Thus a high percentage of each group spend either more or the same amount of time on this element. In this instance it is necessary to break the percentages back down into their individual elements. This then becomes:

	More Time	Same Time	Less Time	Not Applic.
Democratic	69%	25%	6%	0%
Laissez-Faire	50%	46%	0%	4%

Thus, when this is done, it shows that a much greater percentage of teachers consider they spend "more" time on the aspect when the course has been introduced to them democratically.

References

79. DAVIES, H. and RISPIN, M. The Role of Academia in Providing Training for Industry. Journal of Further and Higher Education 11 (1), Spring 1987.

CHAPTER 9

CONCLUSIONS

9:1 Introduction

The aims of this study have been to consider whether:

1. The type of pre-vocational course affects the style of management,

2. The type of institution in which the pre-vocational course is located has an effect on the management style,

3. The management structure of the institution affects the nature of delivery of pre-vocational courses, and

4. The style of management effects the content and learning processes of pre-vocational courses.

Each of these aims will be considered in terms of the results that have been obtained from the questionnaires and in terms of the theory in Chapters 2 - 6.

9:2 Course Management

It has been shown that, in general, more time is spent by teachers of pre-vocational courses on the majority of their work, than they spend on other courses (Section 8:5 - pages 138-147).

Two aspects of management are important in consideration whether the type of pre-vocational course will be affected. These are:

(i) how courses are introduced to teachers and how decisions are communicated, and

(ii) the style of management that is used with respect to administration, course delivery and course evaluation.

The types of course that have been considered are YTS, CPVE, TVEI and BTEC 1st Award with the distribution of respondents shown in Fig. 25 (page 124). The styles of management that have been considered are Autocratic, Democratic and Laissez-Faire with the various elements associated with each shown on page 112 and 113.

It has been suggested (Chapter 6) that pre-vocational courses, to allow them to be integrated and co-ordinated, should possess a team approach to administration, delivery and evaluation, as opposed to an individual one or have it imposed by senior staff. Indeed, as shown in Chapter 3, the curriculum frameworks are

designed in such a manner as to facilitate this type of approach (e.g. integrative assignments in BTEC, planned work experience and off-the-job training elements in YTS). Fig. 33 (page 136) shows that the majority of decisions about course administration are made by senior staff (as opposed to being made by the course team); Fig. 34 (page 137) shows that the main decisions about course delivery are made by individuals (as opposed to the course team); however, as shown by Fig 35 (page 138), the course team mainly makes decisions about student certification and course evaluation. Thus, it would appear that, in the main, only the traditional elements of student certification and course evaluation are, to any degree, attracting a team approach.

SPSS-X was used to cross-tabulate the type of course with:

(i) question 11 - decision making, and

(ii) question 12 - time spent on curriculum aspects.

and an overview of the results of the cross tabulation between "type of course" and "course management decision making" is shown in Appendix 2. In an attempt to compare the results between the courses a mean percentage for each of the major aspects was calculated together with its standard deviation. This is shown in the table below where "Dem" is democratic, "Aut" is Autocratic and "L.F" is Laissez-Faire course management.

	YTS			CPVE			TVEI			BTEC		
	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F
Administration Aspects												
MEAN %	13%	69%	9%	18%	62%	18%	27%	56%	15%	15%	70%	11%
S.D.	4	8	4	8	8	3	25	31	5	8	17	10
Course Delivery Aspects												
MEAN %	22%	11%	53%	21%	21%	58%	47%	16%	25%	34%	11%	48%
S.D.	7	8	25	15	15	13	24	15	17	16	12	21
Assessment and Course Evaluation Aspects												
MEAN %	38%	27%	29%	47%	20%	31%	46%	37%	13%	64%	16%	14%
S.D.	13	13	19	15	5	19	21	27	10	18	9	20

The results of from the table show that there is little difference between the four different pre-vocational courses. It shows that, in general, for all of the courses:

(a) administration decisions are taken autocratically,

(b) decisions about course delivery are the domain of the individual teacher, but that

(c) decisions about student assessment and course evaluation are the only ones that are taken democratically.

However, in (c) above, the standard deviation is high suggesting that there is no strong degree of agreement between the teachers responses. Thus, in arriving at an average percentage, some of the individuality of response is lost.

In order to further see whether the result was significant, a chi square test was completed on the cross tabulation individual aspects. The results of the chi-square test were scanned to find

which of the results were significant. In terms of DECISION MAKING (Questions 11:1 - 11:14), the only result that was significant (i.e. below 0.05) was "decisions about additional studies" (question 11:8 - an aspect of Course Delivery) with a chi square of 31.8 at a significance of 0.045. Thus it can be certain (with 99.45% certainty) that the type of course affects these decisions. This is not surprising as additional studies are a specific element of CPVE and are less important in the other pre-vocational courses. In terms of time spent on PLANNING, (Questions 12:1 - 12:37) two aspects attracted a significant chi square, both relating to relationships with employers. These two aspects were "discussing coursework" and "discussing the type of course expected by employers". It was suggested in both of these cases that more time was spent on YTS courses on this aspect than with other courses and this can be accepted with 99.89% and 99.61% certainty respectively. A further two aspects associated with the CURRICULUM were significant. These were "involving students in community work" and "using residential experience". More time was spent on community work within CPVE and TVEI courses, and more time was spent on residential experiences within YTS courses.

Thus, it can be concluded that *the type of course has no effect on the style of management"* apart from the exceptions above. This, in itself, is an interesting finding. Although little published research has been completed on this aspect, Triggs[80] makes out a case for research to be completed by suggesting that

the four typologies (educational values held by members of staff) of liberal educational, radical, trainer and vocational are seen as arising from a discussion of issues relating to pre-vocational education. He suggests that these typologies have a greater effect upon the curriculum elements of pre-vocational courses than, for instance, style of management. Thus, as an extension, it would appear that the typology is likely to have a bearing upon the style of management. This, however, does not arise from any investigation of practitioners in the field, but from an analysis from published materials relating to the courses. Indeed, he uses the article to suggest that *"a prima facie case for investigation does seem to exist - along with a way of framing the enquiry"*.

It would, then, appear that, tradition, or personalities, have more effect on the style of management than do the type of course. It is still the case that teachers accept decision making from senior colleagues and only are allowed to make decisions about course delivery themselves.

9:3 Effects of Management Structure

Respondents to the questionnaire were asked whether the institution in which they worked had a departmental or matrix management structure. The results (page 131) show that 67% of the sample taught in a departmental structure and 33% in a matrix one. The intention of a matrix structure, as was shown in Chapter 5, is that it can assist with the communication channels particularly with courses that have a cross institution base. Pre-vocational courses are intended to provide a broad vocational training as opposed to narrow, subject specific elements.

Thus, it is important to consider if institution structure has an effect upon management style - as it is intended. For this purpose "management structure" (question 8) was cross tabulated with "decision making" question 11. Fig. 42 (page 148) gives an overview of the results that were obtained from this cross tabulation. This showed that there was little difference between the two types of structure in the way that decisions were taken about pre-vocational courses.

The next stage to consider is whether the institutional structure has an effect upon the curriculum offerings of pre-vocational courses. Thus, "management structure" (question 8) was cross tabulated with "aspects of pre-vocational curriculum (question 12). The results of the cross tabulation have been shown on page 131 where the indication is that teachers who work within matrix

structure management organizations spend more time upon the complete range of pre-vocational curriculum aspects than do their colleagues who work within a departmental management structure. This complete range involves all of the pre-vocational curriculum elements like core curricula, negotiating with students, residential experiences, etc; as well as the use of student centred approaches. Appendix 3 shows the full results of this cross tabulation.

A chi square test was applied to see whether these results could have happened other than by chance. The results show that four of the aspects can be accepted with 99.5% certainty as not having happened by chance (i.e. significance of 0.05 or less). These are:

Question No.	Aspect	Chi Square	Signif
4	Discuss assessment methods with colleagues.	9.6	0.02
8	Use Experience based learning.	8.26	0.04
9	Associate learning with that in the workplace.	8.96	0.02
19	Use residential experience.	13.5	0.004

Thus, the null hypothesis that there is no relation between management structure and curriculum aspects can be rejected. In other words, the results of the study show that there is a relationship between the type of management structure (matrix and departmental) and the manner in which the pre-vocational

curriculum is operated. Teachers who work in a matrix structure organization spend more time upon planning, delivery, assessment and evaluation aspects of their work than do their colleagues who work within a departmental structure. Further, they spend more time upon the important pre-vocational curriculum aspects like negotiation, core curricula, experience-based learning, etc. This might be due to several factors. Theodossin[91] reports that, when a particular college changed from departmental to matrix structure, response time to external initiatives was much more rapid. This, he says, was realised by MSC with the YTS pilot and the Careers Service with an understanding of the curriculum offerings of courses. Stoney and Lines[92] discuss a gradual dismantling of the departmental structure in favour of matrix structures *"in which course teams are likely to play an increasing role"*. Similarly, Davies[93] in his discussion on the introduction of TVEI, highlights the problems for curriculum development (even when focussed on course teams) within a traditional vertical management structure based on departments. In general, the matrix structure institutions that were sampled were small institutions and, as such, the communicatuion channels might be easier to achieve, and thus it might be easier for the course teams to operate more easily together. However, it appears that a matrix structure has a beneficial effect upon the pre-vocational curriculum if spending more time upon important curriculum aspects is a guide.

9:4 Effects of Way Course is Introduced

The questionnaire asked the respondents how the Pre-vocational course was introduced to them (question 9); whether it was introduced autocratically, democratically, or in a laissez-faire manner. The results of how the sample responded to this question is shown in Fig. 31 (page 132), with almost equal numbers having the course introduced in each of the different ways.

The reason for this question was to see whether the manner of introduction had an effect upon the way that the course was run. Figs 44 and 45 (pages 152 and 153) indicate that, when the course is introduced democratically, more time plus the same amount of time is spent upon the important pre-vocational curriculum elements. Appendix 4 gives an overview of the cross-tabulation between manner of course introduction and the way the courses are run.

As previously, it is now necessary to consider whether this result could have happened by chance and a chi square test was applied accordingly. The results of this are shown below.

Question No.	Aspect	Chi Square	Signif
8	Use experience based learning	11.05	0.27
9	Associate learning with that in the workplace.	15.62	0.08
11	Develop personal and social aspects	6.91	0.65
12	Negotiate the curriculum with students and use contract learning	8.77	0.46
13	Use guidance techniques during class time	9.98	0.35
18	Involve students in community work	8.73	0.46
19	Use residential experience.	6.58	0.68
20	Concentrate upon communication skills	12.17	0.20
21	Use common core teaching and learning	17.52	*0.04*

This shows that only one of the aspects has a significance of below 0.05. Only the result associated with common core teaching and learning (question 21) gives a high enough chi square value to lower the significance below 0.05. Hence the null hypothesis *that there is no relationship between how a pre-vocational course is introduced to teacher and the amount of time spent on curriculum aspects* must be accepted. However, from the category counts and raw scores, it can be suggested that a democratic manner of introducing the course has a beneficial effect upon the amount of time spent upon the curriculum aspects. The assumption here is that, working as a member of a team means that there is more liklihood of applying the course as it is intended in the

curriculum framework than if it is introduced either autocratically or in a laissez-faire manner.

Team approaches were part of the NFER research conducted by Stoney and Lines[82] (op cit). They report:

> *"The research has indicated that the way that staff are organized has a significant impact on the functioning of the colleges' own YTS schemes and off-the-job training provision. It appears that the most successful approaches have occurred where small, cohesive course teams have been brought together..... It would seem crucial that they have time available to meet as a team in order to discuss implementation issues, review progress and engage in curriculum and staff development activities. The role of the course tutor is important in acting as a focus on behalf of the team for liaison by colleagues inside and outside the college, for disseminating information to team members....."*

Thus, the stress here is not only on the team approach but the implication is upon the democracy that is required by the course tutor. The availability of time for course team meetings can only lead to a democratic approach and the roles suggested for the course leader imply that this should not be taken autocratically.

9:5-Effects of Way Decisions are Communicated

Question 10 of the questionnaire asked teachers to indicate the manner in which course decisions were communicated to them; whether they were communicated democratically at meetings, autocratically via memo, etc, or in a laissez-faire manner (e.g. in corridors). The results of how the sample responded are shown in Fig. 32 (page 133), and, from this it was shown that almost equal numbers had decisions communicated democratically and "presented by senior staff". However, if autocratic presentation is considered to be the summation of categories 1, 2 and 3 (all methods of presentation as opposed to agreed democratically), then the autocratic method of communicating course decisions is much larger with an almost 2:1 ratio.

Again, the reason for the question was to see whether this has any effect upon the way in which the course is run. Hence, the result of this question was cross tabulated with question 12 (the amount of time that was spent upon the thirty seven pre-vocational curriculum aspects). The results of this cross tabulation are shown in Appendix 5. For each of the five MAJOR curriculum areas a mean response and standard deviation was calculated. The result of this is shown in the table below:

Major Curriculum Aspect	Mean % Response								
	Democratic			Autocratic			Laissez-Faire		
	M	S	L	M	S	L	M	S	L
Curriculum Planning	55%	26%	1%	39%	22%	10%	28%	29%	10%
Prep. for Teaching	36%	46%	5%	41%	32%	5%	19%	33%	8%
METHODS:									
- Teacher-Centred	9%	44%	33%	12%	20%	26%	0%	31%	35%
-Student-Centred	43%	42%	4%	42%	37%	6%	34%	29%	12%
PVE Curriculum	56%	24%	1%	44%	29%	6%	22%	34%	9%
Assessment/Eval'n	58%	39%	3%	51%	25%	8%	36%	32%	9%

M = More time spent on aspect
S = Same time spent on aspect
L = Less time spent on aspect

This, then, shows that in all cases the laissez-faire approach to the communication of decisions results in a smaller percentage of responses, hence less time being spent on the curriculum aspects - except for the use of teacher-centred methods. However, the intention of the pre-vocational curriculum is that LESS time is spent on teacher-centred methods, not more time as is indicated on the table. Therefore, it can be concluded that the effect of laissez faire communication of decisions is detremental to the operation of the pre-vocational curriculum.

The case for the democratic/autocratic dichotomy is less well made. More time is spent on all of the aspects when the decisions are communicated democratically except for "Preparation for Teaching". Thus, it can be concluded that, for most aspects of the operation of the pre-vocational curriculum, it is preferrable that decisions are communicated democratically.

Stoney and Lines[82] (op cit) discuss three common management scenarios for YTS courses:

(i) The college holds responsibility for overall scheme design with departments holding responsibility for scheme delivery.

(ii) Responsibility to most design, delivery, negotiation and co-ordination activities devolved to individual departments with finance being controlled from the centre.

(iii) Most major responsibilities held by the head and staff of one department (of vocational preparation) unit.

They suggest that situation (iii) offers the greatest opportunity for innovation, co-ordinated approaches and for close working relationships. It would seem that this third situation would be the most likely to benefit from a democratic leadership style although, as suggested by the authors, care would have to be taken to aviod 'ghetto' approaches.

9:6 Overall Findings

The results and conclusions of the study have obvious implications for the management of pre-vocational courses. It has been shown that:

(a) the type of pre-vocational course has no effect upon the style of management.

(b) the management structure of the institution has an effect on the pre-vocational curriculum offerings with a matrix structure having a beneficial effect upon how the courses are interpreted.

(c) in general from the category counts, if a course is introduced to teachers in a democratic manner, then there is a likelihood that more time will be spent on the important pre-vocational curriculum elments like common core learning, negotiation, etc.

(d) if decisions are communicated in a laissez-faire manner less time will be spent upon the important pre-vocational curriculum aspects.

(e) in the main, decisions about course administration are made autocratically, decisions about course delivery are made by individual teachers and decisions about student assessment and course evaluation are made democratically.

It has been argued that a democratic style of management would seem important if a pre-vocational curriculum is to be operated as is intended. Yet traditional, autocratic approaches seem to be used to a large extent in many of the institutions. Team work is only in evidence in a minority of the responses and yet this would seem important to adequately offer many aspects of the curriculum.

9:7 Future Work

The bio data of the sample shows that the majority of the sample taught on YTS courses and many worked in FE institutions. It would, however, in the light of developments since the start of the study, be important for future pre-vocational course management to include more respondents who are involved in TVEI courses, especially those who teach in the school sector.

Much of the structure of (arguably) the most influential partner of pre-vocational education, the Training Commission, is undergoing change itself[84]. College principals and education officers, TVEI teachers and careers officers, teacher trainers and curriculum development specialists, as well as people running training projects in voluntary agencies and industry, have learned to live over the past ten years with, what has been known for most of that time as the Manpower Services Commission. Many have had to accept that they have to allow the Commission's officials a say in their planning, and often in the way that they carry out their teaching, in exchange for financial support.

The Commission's role in education has been as an instrument of change. It has made a decentralised education system bring what and how it teaches in line with what has been decided at the "centre". Its chief allies within education have been those who wanted to see change, those who wanted to see experiential

education in schools or the introduction of high-powered marketing in colleges.

Changes have been brought about in schools, in colleges and in the training that has taken place in industry. Now, the advisory bodies in terms of the commissioners themselves and the area manpower boards are being dismantled and the name has changed to "The Training Agency". However, now that the programmes are established, they are unlikely to change in the near future merely because their advisory bodies have gone.

As far as further work is concerned it would be useful to gauge the respondents attitude and thoughts to change. In the questionnaire it was initially thought that the amount of experience that teachers had (question 4) would give indications of an individuals attitude to change. e.g. the more experienced would be less susceptible to acceptance of change. However, the results did not show any significance when the responses to this question were cross tabulated with the respective management questions. This would benefit from further investigation and the addition of either further questions or, perhaps, interviewing a sample of the respondents.

No attempt was made in the survey to include industry and commerce. As a useful extension, it could provide important information as to how they saw the management of pre-vocational courses especially in terms of (a) their own involvement and (b)

in terms of the students who had been part of the various courses. An impressive body of material now exists documenting student attitude to work experience. The attractions of non-school work is evident in several surveys of secondary school children due to its motivating character[85] and when compared with school work[86]. Pre-vocational course evaluations also find it a preferred activity[86 op cit; 87]. It would be useful to find whether this attractiveness is continued into working life and to consider the assistance that the work experience has been once full time employment has been gained.

By comparison with their foreign counterparts, British employers have played a more restricted role in the organization of vocational education and training[88]. Part of this problem, as described by Stokes[87], is the low esteem in which craftsmen, technicians and engineers have traditionally been held in the UK. He argues that these traditions do not burden, for example, the craftsmen or engineers in Germany. Thus, a dichotomony exists. One the one hand the works experience within pre-vocational courses is seen as attractive when compared with school work; on the other hand employers have only a restricted role in vocational education. This, then, would provide a useful and interesting extension to the study.

The involvement of industry and commerce is increasingly important both as a partner in the management process of the courses and as a partner in the "on-the-job training". It would

be important to obtain the perceptions of whether industry and commerce wanted to be involved, whether they benefitted from being involved and whether they were able to influence the off-the-job offerings to their own advantage. Again, a body of information has been gathered that industry considers the work experience aspect of pre-vocational courses as the main recruiting medium for young employees (especially where there is no tradition of apprenticeships[70]). O'Grady[71], in her description of work experience, suggests that many employers in small companies, see this aspect as an "extended interview" where they can find out much information about young people. It would be useful to discuss with (a) students, (b) employers and (c) education, their perceptions of the management of the courses and to observe the similarities and differences between the three especially when the three had the common element of a specific student/course. This, of course would mean the identification of specific aspects which, in the questionnaire used in this survey, were avoided; perhaps the advantage of anonymity would be lost and have to be overcome.

A further extension of the study would be to be more specific about the types of staff development that had taken place for the implementation of the pre-vocational offerings. It has been shown that (a) course administration decisions were mainly made autocratically, (b) that course delivery decisions were mainly made by individuals and (c) that only student assessment and course evaluation (and it was left unclear how much of this

latter aspect was completed explicitly) decisions were made by the course team. Why is this? Do teachers not have the qualifications/training to make administrative decisions or are they not allowed to? Do they not see the need to have the complete team decide upon the aspects of course delivery? Have staff development opportunities been given to the course teams? Do teachers not have specific time set aside during the working week for course development? Are course teams so large that it is difficult for complete teams to meet? These are all questions that have arisen from the results that have been obtained and would benefit from further investigation.

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MANAGEMENT OF PRE-VOCATIONAL COURSES

This questionnaire relates to the management of pre-vocational courses. The intention is to determine if the management structure involved in the running of the course has an effect upon the type of course that is offered.

As pre-vocational courses are completed in both schools and FE institutions, both are being invited to be involved in its completion.

You will see that the questionnaire is to be completed anonymously and there is no intention to either name or draw conclusions about specific individuals or institutions. Indeed, all of the results will be averaged in terms of the type of institution as well as the results gained. In consequence, please complete the questionnaire as honestly as you are able.

When complete please return it in the s.a.e. provided for the purpose.

This questionnaire is addressed to full-time and part-time teachers who spend (or have spent) some or all of their time involved with pre-vocational courses.

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1. In which of the following pre-vocational courses are you MAINLY involved. Please circle the appropriate number.

YTS	1
CPVE	2
TVEI	3
B/TEC Foundation	4
Other (please state)	5

PLEASE CIRCLE ONLY ONE NUMBER. ALL OF THE FOLLOWING QUESTIONS SHOULD BE ANSWERED RELATING TO THAT ONE COURSE.

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2. What is your involvement in that pre-vocational course?

Teaching only	1
Administration only	2
Teaching & Admin.	3

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3. (a) Do you have any special responsibilities for the pre-vocational course either inside or outside your institution (e.g. course tutor, external moderator,etc.)?

YES	1
NO	2

(b) If "YES", list these responsibilities.

---

4. How long have you been involved with the pre-vocational course? Please circle the appropriate number.

less than 1 year	1
1 - 2 years	2
2 - 3 years	3
3 - 4 years	4
more than 4 years	5

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5. (a) In which department do you work?

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(b) Please indicate the grade of your present post by circling the appropriate number below.

Principal Lecturer	1	Scale 4	7
Senior Lecturer	2	Scale 3	8
Lecturer Grade II	3	Scale 2	9
Lecturer Grade I	4	Scale 1	10
Associate Lecturer	5	Instructor F/T	11
Part-time Lecturer	6	Instructor P/T	12

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6. In which ONE of the following subject areas do you do most of your teaching at the moment? Please circle the appropriate number below.

Arts/Social Studies	1
Business/Administrative Studies	2
Information Technology	3
Service Engineering	4
Production - Manufacture	5
Production - Craft-based Activities	6
Distribution	7
Health & Community Care	8
Recreation Services	9
Hospitality (including food & accommodation)	10
Communication	11
Personal and Social Development	12
Computing	13
Others (please state)	14

_____

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7. In what type of institution do you work?

Managing Agent	6
School	5
Upper School	4
VIth Form College	3
Tertiary College	2
FE College	1

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8. What is the management structure of your institution?

Departmental	2
Matrix	1

---

9. Which of the following statements best represents how the pre-vocational course was introduced to you?

- Presented by a senior member of staff and left to work on own. 1
- Through working as a new team to plan and prepare course materials 2
- Working with other colleagues who had already taught on the courses. 3
- Others (please state) 4

.....

.....

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10. Which ONE of the following statements best represents HOW decisions that affect the running of your pre-vocational course are usually communicated to you?

- Verbally presented by a senior member of staff 1
- Presented in written form via memoranda, etc. 2
- Presented verbally at meetings 3
- In an ad-hoc manner (e.g. in corridors) 4
- Arrived at democratically in staff/team meetings 5
- Others (please state) 6

.....

.....

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11. DECISION MAKING

The following question relates to the ways in which decisions are taken about your pre-vocational course. These may be:

- Imposed by an external body (e.g. MSC) 1
- Decided by senior staff (e.g. S.L./ HOD) in your department 2
- Decided by senior staff (e.g. S.L./ HOD) from another department 3
- Decided by the course team 4
- Decided by yourself 5
- Not applicable 6

For each of the aspects below please indicate HOW decisions are reached by placing the most appropriate number from the list above (1 - 6) in the appropriate box.

		Most appropriate number (1 - 6)
1	Allocation of staff to subjects	
2	The manner in which the course budget is spent	
3	Allocation of rooms/laboratories/ workshops	
4	Purchasing of resources	
5	Decisions about course publicity	
6	Decisions about enrolments	
7	Sequencing of topics for teaching purposes	
8	Decisions about additional studies (e.g. additional 'O' levels)	
9	Use of teaching strategies	
10	Use of teaching resources	
11	Design of resources/teaching materials	
12	Assessment of student work	
13	Decisions about overall student certification/qualification	
14	Evaluation of the overall effectiveness of the course	

12. DECISION MAKING

The following statements describe activities on which you may be engaged as part of your normal duties. By placing a tick in the appropriate column, please indicate whether you spend proportionally more time or less time on each activity in connection with your PRE-VOCATIONAL programmes compared with the time spent with your other teaching programmes.

Please Note:

(a) The study is interested in the differences that can be attributed more or less directly to pre-vocational courses. Please discount differences that arise for other reasons (e.g. change of job).

(b) DO NOT OMIT ITEMS. Please check each page to ensure that every item has been ticked in the appropriate space.

(c) If the item represents something that you have never done as part of your job in relation to PRE-VOCATIONAL PROGRAMMES or others, tick the "Not Applicable" column.

		More time with pre-voc. course.	About the same time	Less time with pre-voc. course.	Not applicable
1	Attend team meetings about curriculum development, teaching methods, assessment etc.				
2	Discuss course work with prospective employers.				
3	Discuss course work with teachers in other institutions or careers officers.				
4	Discuss assessment methods with colleagues.				
5	Discuss assessments with students.				
6	Work as a member of a team to develop or modify the course.				

		More time with pre-voc. course.	About the same time	Less time with pre-voc. course.	Not applicable
7	Make visual aids				
8	Use experience-based learning				
9	Associate learning with that in the workplace				
10	Use problem solving and project work				
11	Develop personal and social aspects				
12	Negotiate the curriculum with students and use contract learning				
13	Use guidance techniques during class time				
14	Give assistance to students outside normal class time				
15	Advise students about further opportunities				
16	Use modular course design and graded assessments				
17	Use profiling techniques				
18	Involve students in community work				
19	Use residential experience				
20	Concentrate upon communication skills				
21	Use common core teaching and learning				
22	Invite comments from students about the course and methods of teaching				

		More time with pre-voc. course	About the same time	Less time with pre-voc. course	Not applicable
23	Use role play, case studies, gaming or simulation techniques				
24	Hold tutorial sessions with 1 - 4 students				
25	Participate in team teaching with colleagues				
26	Conduct a discussion session with students as part of teaching				
27	Mark test papers or internal examinations				
28	Read books or journals concerned with teaching				
29	Attend course planning meetings				
30	Allocate time to students for private study during normal class time				
31	Maintain records of students work				
32	Prepare handouts/worksheets for class distribution				
33	Consult employers about the kind of course they would like to see propvided				
34	Consult employers about student progress				
35	Attend course meetings				
36	Dictate notes to students				
37	Present a lecture to a group of students				

A questionnaire of this nature cannot hope to cover every aspect of the introduction of pre-vocational courses. If you wish to make any further comments or suggestions, please use the space below for this purpose. We shall be very grateful for such comments.

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE

Before returning it in the s.a.e. provided, would you please check that you have answered all of the questions fully.

Appendix 2

Cross Tabulation between Type of Course and Course Management

Dem = Democratic Decision Taking
Aut = Autocratic Decision Taking
L.F = Laissez Faire Decision Taking

		YTS			CPVE			TVEI			BTEC		
	Q.No	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F
Administration													
Subjects	1	14%	69%	10%	7%	73%	20%	13%	75%	12%	7%	92%	0%
Budget	2	12%	69%	6%	27%	47%	20%	63%	0%	25%	21%	57%	14%
Rooms	3	6%	83%	8%	13%	67%	20%	50%	38%	13%	7%	93%	0%
Purchase	4	18%	54%	18%	20%	60%	20%	38%	50%	13%	14%	57%	29%
Publicity	5	14%	69%	6%	13%	67%	13%	0%	88%	12%	29%	50%	14%
Enrol	6	16%	67%	6%	27%	60%	13%	0%	87%	13%	14%	71%	7%
MEAN		13%	69%	9%	18%	62%	18%	27%	56%	15%	15%	70%	11%
S.D.		4	8	4	8	8	3	25	31	5	8	17	10

		YTS			CPVE			TVEI			BTEC		
	Q.No	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F
Course Delivery													
Topics	7	30%	14%	53%	27%	20%	53%	13%	38%	50%	65%	0%	35%
More Study	8	21%	25%	8%	14%	50%	35%	25%	13%	0%	21%	35%	14%
Strategies	9	30%	4%	61%	13%	13%	73%	75%	0%	25%	36%	7%	57%
Resources	10	14%	8%	76%	21%	14%	64%	57%	29%	14%	21%	7%	71%
Materials	11	16%	2%	78%	27%	7%	67%	63	0%	37%	29%	7%	64%
MEAN		22%	11%	55%	21%	21%	58%	47%	16%	25%	34%	11%	48%
S.D.		7	8	25	15	15	13	24	15	17	16	12	21

		YTS			CPVE			TVEI			BTEC		
	Q.No	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F	Dem	Aut	L.F
Assessment & Evaluation													
Assessment	12	22%	10%	65%	33%	13%	53%	75%	0%	25%	43%	14%	43%
Certific'n	13	39%	41%	16%	40%	26%	33%	38%	50%	0%	64%	28%	0%
Effect	14	54%	29%	10%	67%	20%	7%	25%	62%	13%	86%	7%	0%
MEAN		38%	27%	29%	47%	20%	31%	46%	37%	13%	64%	16%	14%
S.D.		13	13	19	15	5	19	21	27	10	18	9	20

Chi Square Test

N.B. Values of less than 0.05 are Significant

Question 11 - Decision Making

Q.No	Aspct	Chi Square	Signif-icance
Course Administration			
11:1	Allocation of Staff to Subjects.	23.26	0.276
11:2	The manner in which budget is spent.	14.56	0.801
11:3	Allocation of rooms/labs/workshops	30.14	*0.017*
11:4	Purchasing of Resources	11.36	0.936
11:5	Decisions about course publicity	27.63	0.118
11:6	Decisions about enrolments	22.01	0.340
Course Delivery			
11:7	Sequencing of topics for teaching	19.49	0.490
11:8	Decisions about additional studies	31.81	*0.045*
11.9	Use of teaching strategies	15.11	0.517
11:10	Use of teaching resources	17.27	0.368
11:11	Design of resources/teaching materials	19.10	0.264
Student Assessment/Course Evaluation			
11.12	Assessment of Student Work	20.25	0.442
11:13	Decisions about student certification	21.91	0.345
11:14	Evaluation of effectiveness of course	24.15	0.236

Question 12 - Time Spent on Curriculum Aspects

Q.No	Aspct	Chi Square	Signif-icance
Curriculum Planning			
12:1	Attend team meetings about cur. dev't	10.54	0.569
12:2	Discuss course work with employers	30.78	*0.002*
12:3	Discuss course with external teachers	11.62	0.477
12:6	Develop course through team work	16.30	0.178
12:28	Read teaching books/journals	10.30	0.590
12:29	Attend course planning meetings	15.64	0.208
12:33	Consult employers about what they want	27.13	*0.007*
12:35	Attend course meetings	13.40	0.341
Preparation			
12:7	Make visual aids	5.46	0.941
12:12	Negotiate the curriculum with students	17.31	0.138
12:25	Participate in team teaching	15.04	0.239
12:32	Prepare handouts/worksheets for class	7.99	0.790
Teaching Methods			
12:36	Dictate notes to students	8.86	0.715
12:37	Present a lecture to students	14.03	0.298
12:10	Use problem solving and project work	12.32	0.42
12:14	Give assistance outside class time	16.04	0.189
12:15	Advise about further opportunities	14.67	0.26
12:23	Use role play, case studies, etc.	15.06	0.238
12:24	Hold tutorials for 1 - 4 students	20.19	0.064
12:26	Conduct a student discussion session	17.64	0.127
12:30	Allocate time for student private study	13.43	0.339
Pre-Vocational Curriculum Aspects			
12:8	Use experience based learning	9.53	0.657
12:9	Associate learning with the workplace	11.79	0.463
12:11	Develop personal and social skills	11.05	0.524
12:12	Use contract Learning	17.31	0.138
12:13	Use guidance techniques	9.43	0.666
12:18	Involve student in community work	20.91	*0.049*
12:19	Use residential experience	22.27	*0.035*
12:20	Concentrate upon communication skills	11.96	0.449
12:21	Uswe common core teaching and learning	13.99	0.301
Student Assessment/Course Evaluation			
12:4	Discuss assessment methods	10.38	0.583
12:5	Discuss assessment with students	11.07	0.522
12:16	Use modular design & graded assessments	11.70	0.470
12:17	Use profiling techniques	14.56	0.266
12:27	Mark tests/internal examinations	9.53	0.658
12:31	Maintain records of student work	7.67	0.810
12:22	Invite student comments about course	6.79	0.871

Appendix 3

Cross Tabulation between Management Structure and Curriculum Aspects

The following results were obtained from the cross tabulation between question 8 (Management Structure of the Institution) and question 12 (Amount of Time spent upon various Pre-Vocational Curriculum Aspects.

The figures show the percentages associated with each of the management structures. Thus, the raw scores have been changed to percentages for comparative purposes. The question numbers refer to the components of question 12 (see appendix 1 for full description of each question).

		Matrix			Departmental		
Component	Q.No	More Time	Same Time	Less Time	More Time	Same Time	Less Time
Curr. Planning							
Team Meetings	1	70%	20%	7%	48%	27%	10%
Employers	2	37%	6%	10%	47%	8%	8%
Others	3	30%	20%	6%	29%	27%	5%
Work as a Team	6	60%	27%	7%	51%	24%	15%
Read Journals	28	23%	70%	3%	27%	53%	8%
Planning Meetings	29	67%	20%	3%	47%	28%	7%
Ask Employers	33	23%	27%	7%	32%	15%	2%
Go to meetings	35	70%	20%	2%	53%	30%	5%
Prep for Teaching							
Make Visual Aids	7	23%	73%	3%	26%	59%	8%
Negotiate curr'm	12	43%	23%	7%	37%	19%	7%
Team Teach	25	28%	28%	7%	27%	15%	5%
Prepare handouts	32	37%	60%	3%	43%	46%	7%
METHODS							
Teacher-Centred							
Dictate Notes	36	10%	30%	30%	3%	25%	36%
Present a Lecture	37	10%	46%	23%	3%	40%	36%
Student-Centred							
Project Work	10	53%	43%	3%	49%	36%	10%
Help Students	14	30%	63%	3%	36%	42%	7%
Advise Students	15	43%	50%	7%	44%	44%	3%
Use Role Play	23	33%	50%	7%	41%	35%	3%
Give Tutorials	24	53%	23%	3%	43%	28%	-
Use Discussion	26	40%	53%	-	50%	33%	8%
Use Private Study	30	23%	47%	13%	20%	23%	23%

Component	Q.No	Matrix			Departmental		
		More Time	Same Time	Less Time	More Time	Same Time	Less Time
PVE CURRICULUM							
Experience	8	40%	57%	3%	50%	29%	13%
Workplace	9	52%	38%	10%	63%	30%	–
Personal/Social	11	70%	23%	3%	62%	24%	8%
Contract Learning	12	43%	23%	7%	38%	20%	7%
Guidance	13	47%	43%	3%	43%	44%	5%
Community	18	20%	13%	7%	25%	2%	5%
Residential	19	53%	13%	–	25%	3%	–
Communication	20	30%	60%	7%	39%	46%	2%
Common Core	21	53%	33%	7%	46%	41%	2%
COURSE EVAL'N							
Discuss Assess't	4	77%	20%	3%	43%	38%	13%
Assess students	5	60%	37%	3%	69%	20%	7%
Graded Ass'ts	16	40%	46%	3%	40%	35%	2%
Use Profiles	17	73%	7%	3%	65%	15%	–
Invite comments	22	40%	50%	7%	44%	39%	14%
Mark Tests	27	47%	20%	23%	25%	40%	20%
Maintain Records	31	70%	30%	–	58%	35%	2%
Consult Employers	34	27%	27%	3%	48%	15%	3%

Appendix 4

Cross Tabulation between How Course was Introduced and Pre-Vocational Curriculum Aspects

The following results were obtained from the cross tabulation between question 9 (How the Course was Introduced to Teachers) and the amount of time teachers spend upon the important pre-vocational curriculum aspects of question 12. The figures shown are the percentages that responded in each of the categories.

M = % More Time
S = % Same Time
L = % Less Time

Component	Q No	Autocratic			Democratic			Laissez Faire		
		M	S	L	M	S	L	M	S	L
Curriculum Planning										
Team Meetings	1	53	23	4	72	19	6	41	35	14
Employers	2	27	15	12	50	9	9	55	-	3
Others	3	27	23	4	41	25	6	20	24	7
Work as a team	6	46	38	4	72	23	3	41	21	24
Read Journals	28	23	57	12	25	59	3	29	61	4
Planning meetings	29	46	23	8	78	18	-	32	39	11
Ask employers	33	23	19	4	41	19	6	25	21	-
Go to meetings	35	58	31	4	68	28	-	50	25	4
Prep for Teaching										
Make visual aids	7	19	65	8	31	66	3	29	61	7
Negotiate curric'm	12	35	19	8	50	28	3	32	18	11
Team teach	25	20	16	4	29	23	10	32	21	20
Prepare handouts	32	32	53	-	43	50	6	42	46	7
METHODS										
Teacher-Centred										
Dictate Notes	36	11	27	23	6	19	34	-	35	42
Present a Lecture	37	8	54	19	6	31	37	3	50	36
Student-Centred										
Project Work	10	42	46	8	59	37	3	46	35	11
Help Students	11	35	42	7	25	66	6	50	36	4
Advise Students	15	54	35	4	41	53	6	46	46	-
Use Role Play	23	46	27	-	53	31	3	43	25	-
Give Tutorials	24	62	27	-	44	44	10	39	46	4
Use Discussion	26	46	27	-	53	31	3	43	25	-
Use Private Study	30	12	27	15	25	34	25	25	29	18

M = % More Time
S = % Same Time
L = % Less Time

Component	Q No	Autocratic M	Autocratic S	Autocratic L	Democratic M	Democratic S	Democratic L	Laissez Faire M	Laissez Faire S	Laissez Faire L
PVE Curriculum										
Experience	8	39	42	12	59	38	3	43	39	11
Workplace	9	65	19	4	68	25	6	50	46	-
Personal/Social	11	58	27	12	69	25	6	68	21	4
Contract Learning	12	35	19	8	50	28	3	32	18	11
Guidance	13	42	42	8	47	50	-	43	39	4
Community	18	20	4	-	31	9	6	21	4	11
Residential	19	28	4	8	44	13	3	29	4	7
Communication	20	46	38	-	40	53	3	29	57	4
Common Core	21	54	35	4	53	38	3	39	40	33

Average values of % More Time and Same Time for PVE Curriculum Elements

	Q. No	Autocratic	Democratic	Laissez Faire	Chi Square	Significance
PVE Curriculum						
Experience	8	81%	97%	82%	11.02	0.27
Workplace	9	84%	94%	96%	15.62	0.08
Personal/Social	11	85%	94%	89%	6.91	0.65
Contract Learning	12	54%	78%	50%	8.77	0.46
Guidance	13	88%	97%	82%	9.98	0.35
Community	18	24%	40%	25%	8.73	0.46
Residential	19	32%	57%	33%	6.58	0.68
Communication	20	84%	93%	86%	12.17	0.20
Common Core	21	89%	91%	79%	17.52	0.04

Appendix 5

Cross Tabulation between How Course Decisoons are Communicated and Pre-Vocational Curriculum Aspects

The following results were obtained from the cross tabulation between question 10 (How the Course Decisions are Communicated to Teachers) and the amount of time teachers spend upon the important pre-vocational curriculum aspects of question 12. The figures shown are the percentages that responded in each of the categories.

M = % More Time
S = % Same Time
L = % Less Time

Component	Q No	Democratic			Autocratic			Laissez Faire		
		M	S	L	M	S	L	M	S	L
Curriculum Planning										
Team Meetings	1	67	29	-	52	19	5	31	39	15
Employers	2	50	8	4	33	5	14	46	7	-
Others	3	38	21	-	24	19	4	23	15	8
Work as a team	6	67	33	-	52	19	4	31	23	23
Read Journals	28	26	61	4	38	48	5	7	77	15
Planning meetings	29	87	9	-	38	24	10	31	31	8
Ask employers	33	35	22	-	29	14	10	15	7	-
Go to meetings	35	70	26	-	43	38	10	39	31	7
Mean Response (%)		55	26	1	39	22	10	28	29	10
Standard Deviation		21	17	2	10	14	4	13	23	8
Prep for Teaching										
Make visual aids	7	17	79	4	38	48	5	8	69	8
Negotiate curric'm	12	50	20	-	52	19	-	8	15	8
Team teach	25	30	35	4	35	15	10	15	8	-
Prepare handouts	32	48	44	9	38	47	5	46	39	15
Mean Response (%)		36	46	5	41	32	5	19	33	8
Standard Deviation		16	25	4	8	18	4	18	28	6
METHODS										
Teacher-Centred										
Dictate Notes	36	9	39	5	14	10	29	-	23	38
Present a Lecture	37	9	48	30	10	29	43	-	39	31
Mean Response (%)		9	44	33	12	20	36	-	31	35
Standard Deviation		0	5	3	2	10	7	0	8	4

M = % More Time
S = % Same Time
L = % Less Time

Component	Q No	Democratic M	Democratic S	Democratic L	Autocratic M	Autocratic S	Autocratic L	Laissez Faire M	Laissez Faire S	Laissez Faire L
Student-Centred										
Project Work	10	63	37	-	43	43	5	46	31	23
Help Students	14	33	62	4	38	38	5	39	23	8
Advise Students	15	50	42	4	43	43	-	31	46	15
Use Role Play	23	30	48	4	29	43	10	39	39	-
Give Tutorials	24	57	26	-	48	33	-	15	23	-
Use Discussion	26	39	52	-	57	33	-	46	39	15
Use Private Study	30	26	30	17	33	24	19	23	-	23
Mean Response (%)		43	42	4	42	37	6	34	29	12
Standard Deviation		13	12	6	9	7	6	11	14	9
PVE Curriculum										
Experience	8	63	38	-	33	43	14	54	23	15
Workplace	9	75	25	-	43	38	10	46	39	-
Personal/Social	11	71	17	4	67	14	10	39	54	8
Contract Learning	12	50	20	-	52	19	-	8	15	8
Guidance	13	54	42	-	52	38	5	8	62	15
Community	18	29	8	-	20	10	5	8	-	8
Residential	19	46	4	-	40	10	10	7	-	7
Communication	20	54	41	-	29	57	-	23	46	8
Common Core	21	63	21	4	57	28	-	8	69	8
Mean Response (%)		56	24	1	44	29	6	22	34	9
Standard Deviation		13	13	2	14	16	5	18	24	4
Assessment/Eval'n										
Discuss Assessment	4	71	25	-	48	29	13	46	31	23
Assess Students	5	67	29	4	62	19	5	39	46	15
Grade Assessments	16	46	46	-	43	24	5	25	42	-
Use Profiles	17	75	8	-	76	10	-	46	15	-
Invite Comments	22	46	50	-	57	23	5	23	39	8
Mark Tests	27	48	30	17	24	38	24	39	23	15
Maintain Records	31	70	30	-	67	24	-	39	46	8
Consult Emploters	34	44	17	-	33	29	14	31	15	-
Mean Response (%)		58	39	3	51	25	8	36	32	9
Standard Deviation		13	19	6	16	8	8	8	12	8