Innovatory Staffing Practices in City Technology Colleges

Jo Mortimore

Thesis submitted for the degree of Doctor of Philosophy

Institute of Education University of London

1997



ABSTRACT

This study explored the use of staff in a sample of institutions specifically designed to be innovative -

City Technology Colleges (CTCs). The research focused on theories of educational change developed

by Gross, Giacquinta and Bernstein (1971) and Fullan (1991) in order to evaluate the benefits,

problems and cost-effectiveness of innovative associate (non-teaching) staff posts.

Eight CTCs, providing a geographical spread and a variety of innovative posts, were selected. In each,

four posts (15 women and 17 men) were chosen for detailed study. The posts covered:

• support for management and administration (10)

• support for the curriculum (13)

• support for both management and curriculum (9).

Two hundred and two semi-structured interviews were conducted with governors, senior and line-

managers, teachers and postholders during two phases of fieldwork undertaken between autumn 1993

and summer 1995.

The freedom of CTCs provided scope for the opportunistic use of postholders' skills. The majority of

posts were judged to be cost-effective. The benefits of the innovative posts included improved

opportunities for students and staff to gain from associate staff expertise; managers and teachers,

respectively, having more time for planning and pedagogy; and more cost-effective use of resources.

Problems were related to teachers' resistance, lack of clarity in the posts and excessive responsibilities

being given to postholders.

Gross et al's and Fullan's theories were congruent with the finding of the study but neither theory was

sufficient to explain the success or failure of innovation in these CTCs. The concept of culture - both

positive aspects (which enabled staff, including those who were not teachers, to feel part of a new

innovative venture) and negative aspects (teaching or industrial sub-cultures preventing the innovations

from taking root) - emerged as a useful explanatory concept. The study concluded with implications

for policy, practice and further research.

Gross, N, Giacquinta, J. and Bernstein, M. (1971) Implementing Organizational Innovations, New York: Basic Books.

Fullan, M. (with Stiegelbauer, S.) (1991) The New Meaning of Educational Change, London: Cassell.

Key words: Innovation; City Technology Colleges; change theory; associate staff; culture.

2

Contents

Contents	Page	
List of Figures and Tables	6	
Introduction and Acknowledgements	8	
Chapter One: The Concept of Innovation and Change in Education		
Introduction	10	
1. The concept of innovation and change in education	10	
2. Two theoretical approaches to innovation and change in education	13	
3. Associate staff	23	
4. City Technology Colleges	28	
5. Cost-effectiveness analysis	35	
6. Research questions	38	
Chapter Two: Research Design and Methodology	39	
Introduction	39	
1. Rationale for the methodology	40	
2. Research questions to be addressed	43	
3. Negotiating access to the CTCs and drawing a sample	45	
4. Fieldwork over the two phases of the research	49	
5. Analysis of the data	53	
6. Cost -effectiveness analysis	58	
7. Discussion.	59	
Chapter Three: Eight City Technology Colleges	62	
Introduction	62	
College 1	63	
College 2	65	
College 3	67	
College 4	69	
College 5	71	
College 6	74	
College 7	77	
College 8	79	
Discussion	82	
Chapter Four: Staffing Innovations In Eight Colleges	85	
Introduction	85	
1. Had the relative freedom of CTCs resulted in more innovative posts?	85	
2. Had the relative freedom resulted in the recruitment of people from		
industry and commerce?	89	
3. Were associate staff without teaching qualifications engaged in teaching?	92	
4. Were there boundaries between what teachers and associate staff did and,		
if so, how permeable were they?	95	
5. Discussion.	99	

Contents

	Page		
Chapter Five: The 32 Innovative Associate Staff Posts			
Introduction			
1. Posts mainly supporting management	103		
2. Posts mainly supporting the curriculum	109		
3. Posts supporting both management and the curriculum	114		
4. Discussion.	118		
Chapter Six: Benefits of the Innovative Posts	120		
Introduction	120		
1. The organisation and management of the colleges	122		
2. The organisation and management of teaching and learning	128		
3. The respondent's own role	135		
4. The postholders	140		
5. Governors' views.	155		
6. Were the benefits of the posts different from respondents'			
expectations?	156		
7. Could other schools learn from these innovative posts?	158		
8. Dissemination	160		
9. Discussion	164		
Chapter Seven: Problems and Criticisms	169		
Introduction	169		
1. The organisation and management of the colleges	170		
2. The organisation and management of teaching and learning	174		
3. The respondent's own role	180		
4. Problems experienced by the postholders	185		
5. Governors' views	193		
6. Discussion.	193		
Chapter Eight: Cost-effectiveness of the Innovative Posts	200		
Introduction	200		
1. Cost-effectiveness considerations as part of the planning process	202		
2. Respondents' perceptions of the cost-effectiveness of the 32 posts	205		
3. Researchers' assessments of the cost-effectiveness of ten management			
support posts	208		
4. Researchers' assessments of the cost-effectiveness of thirteen			
curriculum support posts	225		
5. Researchers' assessments of the cost-effectiveness of nine management			
and curriculum support posts	246		
6. Discussion.	260		

	Page		
Chapter Nine: College Change and Management Approaches			
to Innovation			
Introduction	267		
Changes to staffing policies	268		
2. Changes to staffing practices in relation to the 32 posts	270		
3. Barriers encountered in the management or experience of change	276		
4. Management techniques for implementing innovation and change	281		
5. Discussion	288		
Chapter Ten: The Relationship of the Data to Two Theories			
of Innovation and Change	292		
Introduction	292		
1. A summary of the findings of earlier chapters on processes and			
outcomes	292		
2. An application of the theory of Gross et al (1971) to the data	293		
3. An application of the theory of Fullan (1991) to the data	308		
4. A discussion of the congruence between the theories of Gross et al (1971)			
and Fullan (1991) and the findings of this study	321		
Chapter Eleven: The CTC Culture and the Innovative Posts	326		
Introduction	326		
1. A summary of the answers to the five research questions	326		
2. The 'cultures' of the workplace, of schools and of CTCs	328		
3. The impact of these cultures on the final evaluations of the 32 posts	334		
4. Are there lessons from the study for future theories of change?	340		
5. Conclusions of the study	342		
References	347		
Appendices			
1. The 32 innovative posts	358		
2. Sample interview schedule	359		
3. Financial grid.	376		

Figures and Tables

Chapter Two		Page	
Figure Figure		Grids for logging groups of related questions by group of respondents Grids for logging responses by research question and by college	56 57
Chapte	er Fo	ur	
Table 4		Factors associated with the relative freedom to create innovative posts Effect of business ethos on CTC recruitment	86 90
Table 4	4.3	Were associate staff without teaching qualifications engaged in teaching?	92
Table 4	4.4	Were there boundaries between what teachers and associate staff did?	95
Chapte	er Six	;	
Table		Benefits of ten management support posts to the organisation and	
		management of the colleges	123
Table	6.2	Benefits of 13 curriculum support posts to the organisation and	
		management of the colleges	124
Table	6.3	Benefits of nine management and curriculum support posts to the	
		organisation and management of the colleges	126
Table	6.4	Benefits of ten management support posts to the organisation of	
		teaching and learning	128
Table	6.5	Benefits of 13 curriculum support posts to the organisation of teaching	
		and learning	131
Table	6.6	Benefits of nine management and curriculum support posts to the	
		organisation of teaching and learning	133
Table	6.7	Benefits of the ten management support posts to the respondent's	
		own role	135
Table	6.8	Benefits of 13 curriculum support posts to the respondent's own role	137
		Benefits of nine management and curriculum support posts to the	
		respondent's own role	139
Table	6.10	Benefits to postholders of ten management support posts: as perceived	
		by line-managers	141
Table	6.11	Benefits to postholders of ten management support posts: as perceived	
		by teachers	142
Table	6.12	Benefits of ten management support posts: as perceived by postholders	144
		Benefits to postholders of 13 curriculum support posts: as perceived by	
		line-managers	145
Table	6.14	Benefits to postholders of 13 curriculum support posts: as perceived by	
		teachers	147
Table	6.15	Benefits of 13 curriculum support posts: as perceived by postholders	149
		Benefits to postholders of nine management and curriculum support	- 17
	0.10	posts: as perceived by line-managers	151
Table	6.17	Benefits to postholders of nine management and curriculum support	
- 00-0		posts: as perceived by teachers	152
Table	6.18	Benefits of nine management and curriculum support posts: as perceived	
		by postholders	154
Table	6.19	Benefits of the staffing innovations as perceived by governors	155
		Were the benefits of the posts different from respondents' expectations?	157
		Could other schools learn from these innovative posts?	159

		Page
Table 6	22 Attempts to disseminate innovations within the CTC network	161
Table 6	23 Attempts at wider dissemination	162
Chapter	Seven	
-	1 Problems associated with ten management support posts for the	
14010 ,	organisation and management of the college	170
Table 7	2 Problems associated with 13 curriculum support posts for the	1.0
i uoic ,	organisation and management of the college	172
Table 7	3 Problems associated with nine management and curriculum support	1,-
14010 ,	posts for the organisation and management of the college	173
Table 7	• •	175
14010 ,	organisation and management of teaching and learning	175
Table 7	· · · · · · · · · · · · · · · · · · ·	1,0
14010 ,	organisation and management of teaching and learning	176
Table 7	.6 Problems associated with nine management and curriculum support	1,0
ruoio ,	posts for the organisation and management of teaching and learning	179
Table 7		175
Table 7	respondent's own role	181
Table 7	•	101
raute 7	respondent's own role	182
Table 7	9 Problems associated with nine management curriculum support	102
radic 7.	posts for the respondent's own role	184
Table 7	10 Problems experienced by the ten management support postholders	185
	11 Problems experienced by the 13 curriculum support postholders	188
	12 Problems experienced by the nine management and curriculum	100
Table 7.	support postholders	191
	support postatores	171
Chapter		
	3.1 Was cost-effectiveness a factor in the planning of posts?	203
	3.2 What did cost-effectiveness planning include?	204
	3.3 Were the innovative posts cost-effective?	205
	3.4 Why were the innovative posts cost-effective?	206
Table	3.5 Researcher's assessments of the cost-effectiveness of the posts	262
Chapte	r Nine	
_	9.1 Reasons for changes, for better and for worse, in the 32 posts	271
	9.2 Perceived barriers to innovation and change	277
	9.3 Management techniques for innovation and change	282
Chanta	. Ton	
Chapter		295
	0.1 Prior knowledge of innovative post	293
rable r	0.2 Usual form of communication between postholders and	207
Table 1	line-managers	297
rable I	0.3 Meetings attended by postholders, as reported by them and their	200
Tok1- 1	line-managers	298
radie I	0.4 Perceived capability of associate staff	300
Chapter	· Eleven	
Table 1	1.1 Researcher's assessments of the overall effectiveness of the posts	336

INTRODUCTION AND ACKNOWLEDGEMENTS

Background to the thesis

This thesis grew out of a two-year study of City Technology Colleges (CTCs) which was funded by the Economic and Social Research Council (ESRC) and co-directed by Professor Peter Mortimore and the researcher, who is the author of this thesis. The third grant holder was Professor Hywel Thomas (of the University of Birmingham). The overall operation of the ESRC study (R100 234807), the design of the research instruments and the form of the qualitative analyses were the responsibility of the co-directors. The initial cost-effectiveness analyses, which contributed to Chapter Eight, were carried out by Professor Thomas on data collected by the researcher. All the fieldwork interviews, the coding and all the data analyses for the study on which this thesis draws were carried out by the researcher: the thesis is her work alone.

Although all the empirical data were collected by the researcher during the duration of the ESRC study, the constraints of time and the recommended length for ESRC reports meant that many of the issues which emerged were unable to be developed as fully as they deserved. Two publications arose from the ESRC study; in both the researcher was the first author. One was an introductory article on the research (Mortimore and Mortimore, 1995); the other was a chapter on general staffing innovations in the CTCs, which contributed to Chapter Four of this thesis (Mortimore and Mortimore, 1996). The writing of further articles drawing on the ESRC data was postponed until after the completion of the thesis. The writing of the thesis provided the opportunity to re-analyse, interpret and present all the ESRC data in much more detail (as will be amplified in Chapter Two on methodology) and to discuss in greater depth many of the issues raised in the ESRC report. Thus, it has been possible to develop further the material on the introduction of innovation and the management of change, and so extend the discussion of how it related to the theoretical frameworks of writers on innovation in education. Other detailed findings are presented for the first time. For example, in Chapter Six and Chapter Seven, the benefits and the problems associated with specific innovative posts have been analysed in terms of four aspects of college life; in Chapter Eight the data from the phase two interviews added to, and in some cases altered, the final judgements on the cost-effectiveness of individual posts, for which six classifications were developed by the researcher, Chapter Nine presents, for the first time, data on change over the two phases of the study; in Chapter Eleven the innovative posts have been re-grouped along a continuum and there is new material on the role played by the concept of 'culture' in the success and sustainability of innovation.

Nomenclature

Throughout this thesis the term 'associate staff' is used. The term originated in an earlier study of 'non-teaching staff' funded by the (then) Department for Education (Mortimore, Mortimore and Thomas, 1992). The authors found there was a paradox between the essentially positive elements of the investigation and the negative connotations of classifying people by what they were *not*. To name such a varied group of people according to what they did not do, rather than by what they did contribute to the school, was demeaning and unjust. Accordingly, the term 'associate staff' was adopted to cover all the people working in a school who are not teachers (Mortimore and Mortimore, with Thomas, 1994). The issues to do with such posts raised in the earlier work led directly to the ESRC study of developments in the roles and deployment of associate staff in City Technology Colleges.

Readers' guide to the thesis

Chapter One sets out the background to, and the rationale for, the research undertaken for this thesis. Two existing models of innovation and change are discussed. The role of associate staff is set in the context of educational developments in the 1980s, culminating in the introduction of City Technology colleges in 1986 and the drive for cost-effectiveness in the education 'market'. The next Chapter (Two) describes the methodology of the study. Chapter Three presents brief 'cameos' of the eight colleges in the study. This is followed by Chapter Four which draws on interview data on staffing innovations (in broad terms) in the colleges. Chapter Five introduces the 32 associate staff posts which were the focus of the study. The next four chapters present the findings from the interviews. Thus, in Chapter Six the perceived benefits of the posts are discussed in relation to four aspects of the colleges and their personnel. This format is repeated in Chapter Seven, where interview data on problems and criticisms are presented. The cost-effectiveness of each post is the subject of Chapter Eight. Changes to the 32 posts over the duration of the study are presented in Chapter Nine. In Chapter Ten the findings are related to the theories set out in Chapter One. The final Chapter Eleven draws together the threads of previous chapters and interprets the findings in the context of the culture of CTCs and concludes with some recommendations for policy makers and practitioners.

Acknowledgements

A number of people supported the work reported in this thesis: the ESRC and my fellow grant holders - Professor Peter Mortimore and Professor Hywel Thomas; the Chief Executive of the CTC Trust who facilitated access to the colleges; the principals and their senior colleagues who permitted and arranged the college visits; the respondents who gave up their time to be interviewed; and Professor Denis Lawton who provided supervision which was both rigorous and supportive.

Chapter One

THE CONCEPT OF INNOVATION AND CHANGE IN EDUCATION

Introduction

Chapter One sets out the background to, and the rationale for, the research on which this thesis is based

The chapter has six sections.

- 1. The concept of innovation and change in education
- 2. Two theoretical approaches to innovation and change in education:
- the work of Gross, Giacquinta and Bernstein (1971)
- the work of Fullan (1991)
- 3. Associate staff
- 4. City Technology Colleges
- 5. Cost-effectiveness analysis
- 6. Research questions.

Almost all the material in sections one and four is presented for the first time in this thesis. Sections two, three and five are extended versions of the discussions in the ESRC report. The research questions are the same as those addressed in the ESRC study.

1. The concept of innovation and change in education

The term 'innovation', according to the Oxford English Dictionary (1970, vol V, p 314) comes from the Latin word 'innovare' - to renew, or alter. 'Innovate' means 'to change a thing into something new...to bring in (something new) for the first time, to make changes in something established'. Innovation in business organisations has generated an abundant literature (Peters and Waterman, 1982; Bennis and Nanus, 1985; Handy 1993) but will not be discussed in detail here. Suffice it to say that Peters and Waterman wrote of the three pillars of organisations as being 'stability', 'entrepreneurial' and 'breaking-habits'; Bennis and Nanus stressed the importance of leadership and its different dimensions; Handy had 'innovation' as one of four sets of organisational activities, along with 'steady state',

'breakdown' and 'policy'.

In educational contexts the term 'innovation' has, as Owens (1995) has noted, tended to be equated with 'change' though, strictly speaking, the two words have different meanings and change simply means 'become different', with no implication that the difference has to be novel. Ruddock (1991), however, drew attention to the possibility, in relation to curriculum developments, that innovation could occur without change. Maclure (1987) made a similar point when he asked "What is an improvement and what is just change?" (p 182). In this thesis, 'innovation' will be used in the strict meaning of the term, with its implication of both change and novelty.

Much of the literature on innovation in education has focused on changes to the curriculum or to methods of instruction which burgeoned in the 1960s and 1970s in the USA (Huberman and Miles, 1984; Hall and Hord, 1987) and in the 1970s and early 1980s in Britain (Ruddock, 1991; Williams and Yeomans, 1994). Many of the innovations in the USA were prompted by concerns that America would be left behind the USSR in the space race and, on the domestic front, by the development of community and parent groups (Barth, 1979) and by increasing demands for equality and ethnic self-determination (Fantini, 1980; Tyack and Cuban, 1995). In Britain, curriculum innovations were spurred by the raising of the school leaving age in 1972, the debates about equality of opportunity (Mortimore and Blackstone, 1982), a growing concern for 'relevance' in the curriculum (MacDonald, 1991) and the desire to improve, and raise the status of, vocational education through, for example, the Technical and Vocational Education Initiative (Reeder, 1981; Curtis, 1990; Williams and Yeomans, 1994; Gleeson and McLean, 1994).

Many of the efforts at innovation were deemed not to have led to the expected changes in schools and there was little evidence of innovations being used - or sustained - in the classroom (Sarason, 1982; Goodlad, 1984; Wideen, 1987). As Tyack and Cuban (1995) wryly observed, "Some innovations seem to die on contact with the institutional reality of the school". (p 60)

Many writers have evaluated innovations: three areas of research will be used here as examples of the different ways in which staff - always teachers - approached new ways of thinking and learning. In the USA, Chrispeels (1992) investigated teachers' "conscientious if not always successful efforts" (p 157) at school improvement in eight elementary schools. Her work indicated the importance of teacher involvement in decision-making and in school governance for the strengthening of staff commitment and for increasing collaboration and collegiality. Change rarely failed because of sabotage, rather because of "long standing beliefs, norms and values". (p 177) On a positive note, Chrispeels concluded that, even in those schools where less progress towards improvement had been achieved, teachers had views about how schools should improve. These views fell into six categories: shared decision-making and collaboration; communication and shared goals; a school-wide focus; assessment of progress towards goals; home-school relations; and leadership.

Ruddock and her various fellow-researchers reported on several evaluations, ranging from large scale national curriculum projects, to school-based curriculum development, to different styles of pedagogic activities (Ruddock 1991). A consistent thread running through their reports is that of teachers' reluctance to forego their traditional role as "providers of knowledge" (p 42) in favour of fostering students' independent thinking or collaborative group work (a view supported by the work of Ouston, 1990). Ruddock recognised the pressures, in the late 1980s, on teachers who saw themselves as the butt of public criticisms of education, and she warned that such pressures could result in an anti-innovation perspective.

The third example is the Technical and Vocational Educational Initiative (TVEI), introduced as a pilot scheme in 1982, at a time of growing youth unemployment and of concern for those frequently referred to as the 'bottom 40 per cent' in schools (McCulloch, 1989a). The Government intended the TVEI pilot to be a vehicle for top-down reform of technological education and for the injection of "greater vocational realism into schools and colleges" (Gleeson and McLean, 1994, p 233). It was organised by the Department of Employment, rather than the (then) Department of Education and Science. Schools in certain areas could

bid for 'categorical' (earmarked) funding to enhance the technological and vocational provision for a specific cohort of pupils. At a time of financial cutbacks many local education authorities (LEAs) and schools welcomed the opportunity to obtain more resources (Chitty, 1987) although some resisted what they saw as the Government laying the ground for greater central control. Gleeson and McLean suggested that, by the time the pilot was extended (with proportionately less money) to mainstream schooling, a paradox had developed: on the one hand was strong central control embodied in Government's and employers' influence and, on the other hand, was funding which had "pump primed locallybased initiatives which, in many cases, have been highly experimental, creative and teacherbased". (p 235) The authors cited conflicting opinions - that TVEI could be seen as succeeding or failing (depending on one's viewpoint) because it laid the ground for more central control of the curriculum (Dale et al, 1990, cited in Gleeson and McLean) or because it was subverted by school and teacher cultures (Saunders, 1986, cited in Gleeson and McLean). Williams and Yeomans (1994) maintained that there was a gap between the "rhetoric and the reality" of TVEI. In their view, political pressure for it to succeed was accompanied by a lack of prescriptive precision, insufficient monitoring and considerable scope for "domestication and subversion" by schools. (p 303) TVEI became marginalised with the resurgence of the re-named Department for Education and the introduction of the national curriculum and it was superseded by City Technology Colleges (CTCs) and by grant maintained and technology schools (McCulloch, 1989a). Nevertheless, the crucial lesson Gleeson and McLean drew from TVEI was that "education policy which fails to engage with either the culture of the school, college and the teaching profession is unlikely to achieve meaningful reform". (p 242)

2. Two theoretical approaches to innovation and change in education

There is now a significant literature on theories of innovation and change. Two studies by North American scholars, separated by twenty years, have drawn attention to the processes and problems of innovation and change which are apposite to the research reported in this thesis. Thus, Gross, Giacquinta and Bernstein (1971) were writing about a period of unprecedented educational change in the United States, prompted by the social changes noted

above. Twenty years later Fullan (1991) noted the continuing challenges faced by those attempting to innovate and suggested why success in innovation remained elusive. The writers' arguments are summarised below and reasons given for relating them to the City Technology Colleges.

The work of Gross, Giacquinta and Bernstein (1971)

Gross, Giacquinta and Bernstein (1971) challenged the claims made in previous studies of change that members of organisations were, at first, resistant to change and that it was management's ability to overcome this *initial* resistance that accounted for the success or failure of innovation. They argued, instead, that account also had to be taken of the interrelated forces that took effect *after* the innovation was introduced.

The researchers chose to test their theory on a case study of one specific innovation - the operationalisation of a new definition of the teacher as a 'catalytic role model' who facilitated self-directed learning by pupils. In the study undertaken by Gross et al, the role model was promoted by a School District's new Bureau of Educational Change (BEC), whose director oversaw the innovation. The case study was of an elementary 'laboratory school' in which new programmes and materials were tested and which was expected to serve as a training centre for administrators and teachers - a setting in which it seemed reasonable to assume that teachers would welcome change.

Gross et al considered that three sets of specific factors were conducive to such innovation. These were: the external conditions (parents and senior administrators supported attempts to improve the educational programme and the BEC director had considerable freedom over choosing new teachers to implement innovation); the "normative internal climate toward educational innovation" (p 72) in which eight out of the 11 teachers were new and had expressed an interest in educational change and in parity of esteem between teachers and other staff; and the favourable level of resources (including more teacher aides, pro rata, than other elementary schools in the city).

The Concept of Innovation and Change in Education

The two key administrators were interviewed and teachers were observed and interviewed immediately prior to the introduction of the innovation and again towards the end of the school year. Gross et al concluded that the innovation was not being implemented.

The researchers then set out to identify the barriers to innovation and why they had arisen. They concluded there were five principal barriers.

- i) Lack of clarity: senior administrators had not thought through the innovation; there was a lack of communication, coupled with erroneous expectations between them and the teachers; the teachers never fully understood the innovation, so reverted to their former methods.
- ii) Lack of capability: teachers did not have the skills, knowledge or in-service training for their new role in 'open learning' and they lacked peer support.
- iii) Unavailability of necessary materials: bureaucratic procedures in the purchasing systems of the school district hampered the buying of appropriate innovative materials and equipment.
- iv) Incompatible organisational arrangements: administrators' lack of commitment and failure of communication meant that the classroom environment, the timetable and pupil groupings remained restrictive.
- v) Lack of commitment and motivation: teachers had mixed reactions to the innovation. Their disenchantment with the lack of support was compounded by stress, the feeling that they were being 'used' by senior figures anxious to impress and the final straw by the accidental disclosure that some of them were to be transferred to different schools for the following academic year.

Gross et al concluded that the most plausible explanation for the barriers was the strategy used by the Director, which had "failed to identify... the various types of difficulties teachers

were likely to encounter... and failed to use feedback mechanisms to uncover the barriers that arose during the period of attempted implementation". (p 194)

The work of Fullan (1991)

The second theorist to be discussed is Fullan, who has written widely on the subject of educational change. (Some prior knowledge of Fullan's frequently-cited work is assumed so only a brief summary, relevant to the study, is presented in this section.) Fullan (1991) considered the conclusions of Gross et al to be inadequate. He argued that the researchers had paid insufficient attention to the role and rights of the community in which the school was located and that the innovations had been introduced without an adequate rationale and with no planned follow-through. The researchers had "simply assumed... that these 'progressive innovations' were good, and that only problems of delivery interfered". (p 20) Fullan, however, maintained that "the key to understanding the worth of particular changes, or to achieving desired changes, concerns what I call 'the problem of meaning'...neglect of the phenomenology of change - that is, how people actually experience change as distinct from how it might have been intended - is at the heart of the spectacular lack of success of most social reforms". (p 4)

Fullan identified four stages of the change process:

- i) Initiation
- ii) Implementation
- iii) Continuation/institutionalisation
- iv) Outcome.

He claimed that these phases were not linear but operated in a continuous, interactive way. Fullan took each stage in turn and identified further factors, causes or processes associated with them.

i) Initiation

Initiation was "the process leading up to and including the decision to proceed with implementation". (p 50) Fullan identified eight factors affecting this stage. They are noted here briefly and will be compared, in Chapter Nine, to findings from the CTC interview data.

The Concept of Innovation and Change in Education

a) Existence of and quality of innovations

Fullan maintained that "innovations are usually developed in response to the incentive system of society" but that "market conditions ... serve to delimit the educational changes likely to be generated" (p 51). Thus, whilst teachers did not have the time, skills or resources to develop their own innovative materials, the need of business to appeal to as wide a community as possible could limit the scope of the materials developed commercially.

b) Access to information

Personal contact is known to be important in the dissemination of innovation. Yet, Fullan argued, individual teachers, constrained by the demands of their classroom-based role, were less likely to encounter new ideas and strategies than were more flexible consultants, administrators and researchers. Access to information depended on communication structures and mechanisms.

c) Advocacy from central administrators

Fullan claimed that there needed to be an advocate for change and that senior administrative staff could be highly influential in promoting (or blocking) innovation.

d) Teacher advocacy

At first sight this factor appears to contradict (b). Fullan maintained that, despite fewer opportunities for exposure to new ideas, many teachers innovated on a small scale, drawing on the experience of colleagues. Furthermore (as was also noted by Gross et al) they were more likely to do so when the innovation was clear and practical, supported by senior administration and adequately resourced.

e) External change agents

Fullan suggested that external change agents were most influential at this early stage, when they worked with local leaders who, presumably, maintained the stimulus when the change agents had moved on.

f) Community pressure/support/opposition/apathy

Fullan considered that communities could provide all of these at one time or another and that the most predictable community pressure for change came as a result of demographic changes.

g) New policy and funds

Fullan claimed that "New policies, especially if accompanied by funds, stimulate and sometimes require initiation of change at the local level". (p 58)

h) Problem-solving and bureaucratic orientations

Fullan reported that school districts welcomed external policy and/or funds either as an opportunistic (bureaucratic) means of obtaining extra resources or as a means of solving a local problem.

The process of initiation, what Fullan also termed "planning for adoption" (p 63), ideally combined the "three Rs" of Relevance (practicality plus need), Readiness (capacity plus need) and Resources (availability). (There is some repetition between factors and process: 'Resources', arguably, has already appeared above in the 'new funds' in factor g) According to Fullan, "Relevance' includes the interaction of need, clarity of the innovation (and practitioners' understanding of it) and utility, or what it really has to offer teachers and students... 'Readiness' involves the school's practical and conceptual capacity to initiate, develop, or adopt a given innovation... 'Resources' concern the accumulation of and provision of support as part of the change process". (p 64-65)

These three Rs, and Fullan's exposition of them, bear close resemblance to four of Gross et al's five conditions of clarity, capability, compatibility with existing arrangements and resources. The rider to 'clarity' of "practitioners' understanding" presumably reflects Fullan's emphasis on 'meaning'.

The Concept of Innovation and Change in Education

ii) Implementation

Fullan identified both key interactive factors and key themes influencing implementation. The former emphasised specific roles: the latter emphasised "the dynamics of the change process". (p 67)

Key factors

Fullan listed nine implementation factors which he placed in three groups. There was some repetition of the initiation factors in the list of key implementation factors, attributed by Fullan to the fact that, if they could not be resolved at the earlier stage, they carried over into the second stage.

a) The first group consisted of: Characteristics of the innovation or change project

- need
- clarity
- complexity
- quality/practicality.

Fullan argued that many innovations were introduced without proper examination of whether they were likely to meet perceived needs. However, he admitted that participants might only become clearer about their needs once they got involved in the implementation. Echoing Gross et al (1971), Fullan claimed that problems of clarity had been found in most studies of change. Furthermore, simple change might be easier to carry out but might achieve less: complex change could accomplish more but demanded greater effort and took a heavier toll if it failed. Quality could suffer when adoption decisions were made in haste. Practical innovation and change were those "that address salient needs, that fit well with the teachers' situation". (p 72)

b) The second group consisted of: Local characteristics

- school district
- school board and community
- principal

teacher.

Fullan suggested that, where a school district had a history of innovation, previous success or failure would affect teachers' reactions to the next proposed change. If their experience had been negative, they were likely to be cynical, regardless of the merits of the particular case. Conversely, "success can beget success". Returning to an earlier theme, Fullan maintained that "If the subjective meaning of change is so central, it is worth stressing that people carry meanings from one experience to the next". (p 74)

Fullan noted that, in the North American context, school boards from the community could influence innovation by hiring or firing school superintendents who were keen on reform and who, in turn, could appoint like-minded principals. Fullan claimed that principals influenced the likelihood (or not) of change: they were able to ensure that appropriate organisational structures, work cultures, resources and monitoring mechanisms were all in place. Fullan also asserted that teachers' personality, previous experience and stage of career could all affect the degree to which they were, or were not, predisposed to implement change. Some schools had a greater proportion than other schools of change-oriented teachers. Whilst acknowledging that this may have been due in part to self-selection, Fullan maintained "it also seems to be the case that the culture or climate of the school can shape an individual's psychological state for better or for worse". (p 77) Although, in the end, it was individual action that mattered, this was shaped by interaction with others ("Collegiality, open communication, trust, support and help, learning on the job, getting results, and job satisfaction and morale are closely interrelated", p 77) These were also conditions conducive to the development of 'meaning'.

- c) The third group was: External factor
- government and other agencies.

Fullan stated that government agencies had been pre-occupied with policy initiation at the expense of implementation issues: the policy maker and the practitioner had inhabited different worlds.

The Concept of Innovation and Change in Education

Key themes

Drawing on the work of Louis and Miles (1990), Fullan set out six themes in successful innovation and change.

- a) Vision building (a theme which appears to be close to Fullan's concept of 'meaning') "permeates the organisation with values, purpose and integrity for both the what and the how of improvement". (p 81)
- b) Evolutionary planning allowed modifications to be made to adapt to changing circumstances and fostered calculated risk-taking.
- c) Initiative taking and empowerment meant involving others in cross-hierarchical groups and developing collaborative work cultures. It involved leaders in delegating but not abdicating some authority and responsibilities.
- d) Staff development and resource assistance needed to be "understood in relation to the meaning of change and the change process taken as a whole". (p 84) Fullan argued that pre-implementation training only worked if it was followed up with support during implementation to get over the "initial critical hump" (p 85) and to progress to more thorough change.
- e) Monitoring/problem coping were sequential. Systematic monitoring, Fullan claimed, helped to reveal mistakes, problems or unintended consequences. It also allowed good practice to be identified and disseminated.
- f) Restructuring at the school level covered changes in organisational arrangements, roles, governance, finance and policies that "build in work conditions that... support and press for improvement". (p 88)

Fullan concluded that these six themes interacted and all were needed for substantial change to occur. The themes will be referred to again in Chapter Ten.

iii) Continuation/institutionalisation

Drawing on Huberman and Miles (1984), Fullan asserted that continuation depended on three factors: on the change being built into the structure; on there being "a critical mass" of administrators and teachers committed to the change; and on procedures for continuing assistance. Moreover, institutionalisation was not an end in itself but rather "a continuous process of renewal". (p 90) It was the long term capacity for continuous improvement that, ideally, was institutionalised.

iv) Outcome

Fullan did not devote a specific section to this fourth stage although advice on achieving successful innovation was proffered throughout his work. He stressed that successful innovation and change not only related to the themes and factors described in this chapter but also to the people involved ("Understanding the orientations and working conditions of the main actors in schools and school systems is a prerequisite for planning and coping with educational change effectively", p 113)

The writings of Gross et al and Fullan, summarised in this chapter, provided the theoretical framework for the CTC study. The theory put forward by Gross et al appeared an appropriate one to test in the context of CTCs on the basis of five assumptions stemming from it. These were:

- i) that the criterion of *clarity* would be met through the provision of the guidelines to CTCs about the scope for the employment of people other than conventionally qualified teachers ii) that the criterion of *capability* would be met, with the freedom of principals to hire staff they deemed appropriate
- iii) that adequate *resources* would be available from the relatively generous support of sponsors
- iv) that the criterion of *compatibility* would be met given that, in such new institutions, organisational arrangements were likely to be less determined
- v) that the criterion of *commitment* would be met since, even in those colleges which had evolved from former schools, most staff would have chosen to work in the CTCs.

The theory of change propounded by Fullan was chosen to complement that of Gross et al for several reasons. Fullan's work is comparatively well known and widely used by education managers in Britain; he has criticised Gross et al for neglecting what has become a key concept in educational change - the concept of 'meaning'. Gross et al focused on an empirical case study of one institution, whereas Fullan drew on a wide range of empirical and theoretical works. Both, however, recognised that innovation is difficult and has to be prepared for, and sustained. Both concentrated on school change and innovation as they affected, primarily, teachers and, to a lesser extent, school administrators (whose role in the United States is somewhat different to those in the UK).

The next section of this chapter focuses on the group of people who were the subject of the CTC study - associate staff.

3. Associate staff

The staff of a school is not only made up of the head teacher and teachers, but also of a range of other people whose work contributes to the effective operation of that institution. These people are variously described as auxiliary (Kennedy and Duthie, 1975; Leslie, 1986), ancillary (Riches, 1981), non-teaching (HMI, 1992), support (Moyles, 1997) or associate staff (Mortimore and Mortimore with Thomas, 1994). As noted in the Introduction and Acknowledgments, the term 'associate staff' is used throughout this thesis. Every school has an establishment of associate staff which consists of all those staff members who are neither qualified teachers nor students on placement from a teacher training institution.

Until recently, few education reports or books made any reference to these staff. They were taken for granted - at least in print. In reality, many of those who were familiar with schools acknowledged that these staff members often helped to provide the sound infrastructure which contributed to the creation of an effective school. The lack of discussion, except in passing, of the role and influence of associate staff in mainstream schools by those who have written about schools is surprising. Given the influence of management theory and its emphasis on the importance of team approaches to institutional management (Belbin, 1981; Everard and

Morris, 1985), it is remarkable that, until relatively recently, researchers and educational writers, generally, failed to identify the potential of associate staff roles. Thus, the major research studies of effective schools, such as those by Rutter et al, (1979); Mortimore et al, (1988); and Smith and Tomlinson, (1989), paid little or no attention to the potential of associate staff in statutory, mainstream education. (Although Smith and Tomlinson, in their comment that "children who make good progress in scholastic terms also tend to participate in a range of school activities outside the classroom" (p 302) may have been, by implication, acknowledging the support of associate staff in such activities.) On the whole, however, references to the "invisible workers" (Warrington, 1992), though positive have been scant, and the implication has been that postholders would seldom be at senior, or even middle management level.

The role of associate staff in the 1960s and 1970s

Where associate staff have been the subject of study, the focus has tended to be on those engaged in assisting teachers - usually primary teachers - in their classroom tasks (Kennedy and Duthie, 1975). As early as 1967 the Plowden Report made a number of suggestions for the employment of classroom aides (Central Advisory Council, 1967). These recommendations, however, were overshadowed by the Report's better known dictum on the importance of the parental role in education and the subsequent development of parent involvement programmes (Tizard, Mortimore and Burchell 1981). Plowden, however, recognised the "almost insoluble difficulties in defining what is and what is not teaching. and what can and cannot be done by the ancillary staff" (para. 9.21). This was an issue which has been the subject of recurrent comment (Kennedy and Duthie, 1975; Mortimore, Mortimore and Thomas, 1992; and Moyles, 1997). The Bullock Report (Committee of Inquiry into Reading and the Use of English, 1975) argued that teachers, particularly of younger pupils and in areas where there were many disadvantaged young people, "should have the assistance of trained persons, the nature of whose participation she will herself decide according to the demands of the situation". (para. 5.32) Appreciation of the role of associate staff in helping teachers was noted at about that time by one London secondary school head teacher who wrote, "Certainly the teacher is the key figure in schooling, but just

as his task is to so manage matters that he facilitates the learning of the pupils, so there must be others whose task is to facilitate his task" (Marland, 1978 p 1). However, declining school rolls, the desire of LEAs to protect levels of teacher employment and the financial stringency of the 1970s led to cuts in expenditure and to "the indication that, for some time to come, teachers would continue to be paid to spend more time on non-teaching tasks that might otherwise be done more cheaply and efficiently by others" (Miller, 1989, p5).

The role of associate staff in the 1980s

During the 1980s there were considerable changes in education, some of which have been touched upon already. Other changes emphasised formative methods of assessing and recording achievement and changes of philosophy underpinning planning and management in schools. All of these issues affected teachers. All had implications, direct or indirect, for associate staff. Yet in only a few LEAs were these implications investigated. One exception was the authority for central London, the Inner London Education Authority (ILEA), which established two enquiries into ways of raising levels of achievement. Associate staff were not, directly, part of the remit of the two working parties but both reports commented, albeit briefly, on their value (ILEA, 1984; ILEA, 1985).

Also during the 1980s, investigations into the concept of leadership and corporate management led to a burgeoning literature on school organisation (Handy, 1984; ILEA, 1985; Caldwell and Spinks, 1988; and Reid, Bullock and Howarth, 1988). These writers stressed the importance of team building and the 'whole school approach' and argued that all staff should play a more active part in the decision making processes.

In summary, pre-1988 there was rarely any comment on the role and scope of associate staff in the education literature. Early fears about their use as a substitute for teachers remained but were modified by a recognition of their contribution to the teamwork necessary for an effective school. Despite this appreciation, associate staff remained largely 'invisible workers'. By the end of the decade, however, the policy initiatives of a new Secretary of State, initiator of City Technology Colleges and architect of the 1988 Education Reform Act

(ERA), changed that situation and enabled associate staff to develop a higher profile in schools.

1988 Education Reform Act

The 1988 Education Reform Act (ERA) served to clarify, change and, in some cases, extend the role and responsibilities of schools in a variety of ways. The power of local educational authorities was reduced whilst that of both central Government and individual schools was increased.

The central plank of Government policy embodied in the ERA was to promote choice in a market-oriented system (Gamble, 1983; Edwards, Gewirtz and Whitty, 1992a; Lawton, 1989 and 1992; Ranson, 1990; Gewirtz, Ball and Bowe, 1995; Grace, 1995 and Gillborn and Youdell, 1997). In this market, the intention was that parents had greater choice over which school their children would attend; head teachers, governing bodies and those who worked in schools would seek to increase their effectiveness in order to maximise their popularity with parents; school quality would be driven up by market forces; and schools unable to attract 'customers' would have to improve or be forced out of business. Local management of schools (LMS) was part of this market place scenario. Schools were expected to use their resources more cost-effectively and so to provide their customers with greater value for money. The ERA removed most restrictions on the numbers of pupils individual schools could admit. Open enrolment placed on schools the responsibility for promoting themselves in the market in order to attract parents and pupils and to remain viable institutions. The Act also created a new kind of school, one with grant maintained status (GMS), completely independent from the LEA.

The ERA also established statutory parameters, in the form of the national curriculum, for what should be taught in school. Most head teachers and teachers have always engaged in curriculum planning and its associated resource management. The national curriculum, however, set out a framework within which they could plan in a more detailed way the management of the curriculum-related resource requirements, including the deployment of

teaching and other staff. The cost-effectiveness and efficiency of the school, in terms of its impact on teaching and learning, warranted more attention. In particular, there was a need to ensure that the professional knowledge and skills of teachers were used appropriately.

The pressures on head teachers to create an effective school, and the more demanding financial and assessment tasks, encouraged them to appraise existing staff roles. Furthermore, in order to compete in the market that the Government sought to create, schools had to be seen to be effective, as well as cost-effective. These were two compelling reasons why head teachers became increasingly concerned at how the most precious resource of any school its human capabilities - could best be used and how the people concerned used *their* most precious resource - time.

Teachers' use of time

Studies of how primary school teachers used their time found that the majority (70%) of teachers reported "lack of time" as the major obstacle to implementing the national curriculum (Campbell and Neill, 1990). Moreover, it was apparent that many of the tasks recorded by teachers did not need to be carried out by such a qualified person. The results of a similar national survey on how secondary school teachers spent their time (Campbell and Neill, 1991) indicated that teaching accounted for less than a third of the teachers' working time. Most of the remaining time was spent on administration and preparation. These findings were echoed by Torrington and Weightman (1989) and by the Fourth Report of the Interim Advisory Committee on School Teachers' Pay and Conditions (1991). They probably also influenced the view expressed by the School Teachers' Review Body (1992) that "much could be done to improve the effectiveness and morale of teachers by the employment of greater numbers of non-teaching staff in schools." (para 131)

Associate staff in the maintained sector in the 1990s

The increased demands on teachers' time led to proposals for new roles for teachers and those who supported them. Hargreaves (1990) proposed a differentiated career structure for teachers, in which 'career' teachers were supported by 'associate teachers' (for example,

people with technical skills, seconded from industry) and 'assistant teachers' (more like classroom assistants, whose practical help would free teachers to teach). These ideas were developed further by Barber and Brighouse (1992).

The nature of the innovatory use of associate staff within maintained primary and secondary schools was explored by Mortimore, Mortimore and Thomas (1992). The authors found that the innovations resulted in better-serviced planning and decision-making, enhanced learning opportunities for pupils; improved career opportunities for the (mainly female) associate staff; additional skills and expertise being made available to both staff and pupils; and more time for teachers' professional roles. The study examined the cost-effectiveness of the posts. It also revealed a number of problems and tensions, including a lack of adequate training for the new responsibilities and the possible exploitation of low paid, poorly trained staff. ¹ The study raised various questions to do with the strength of the boundaries between teachers and other staff; the extent to which innovations fitted theories about implementing and sustaining change; and whether the innovations would generate less tensions in institutions which were themselves new. It is in relation to this last point that the research on which this thesis is based was located in a different setting, City Technology Colleges.

In the next section it will be argued that the increasingly complex organisation of schools, and the growing literature on the conditions in which innovation and change might be developed and sustained, made CTCs an interesting context for study since these new schools were committed to innovation and had greater freedom over staffing.

4. City Technology Colleges

City Technology Colleges were announced at the Conservative Party Conference in October 1986 by the (then) Secretary of State, Kenneth Baker (DES, 1986). There was to be a 'pilot' network of 20 new schools within four years, with the expectation of more to follow.

Since the completion of that research the DfEE has instigated a pilot programme for training Specialist Teaching Assistants for primary schools. See Moyles, 1997.

The purposes of the CTCs were:

- to provide opportunities for pupils in cities where the education system was "under the most pressure" (DES, 1986, p 2) and where schools were perceived to be failing their pupils;
- to increase choice for parents over their children's school and the kind of education offered
- to assess the value of giving a school more IT equipment than a maintained school. The colleges were to be located in urban areas, some of which would be areas of acute social disadvantage, already part of the Inner City Initiative.

The CTC curriculum was intended to "build upon the lessons of the Technical and Vocational Initiative" (p 3) by emphasising technical and practical subjects. CTCs were intended to inculcate certain attitudes and attributes. Thus, the colleges would "seek to develop the qualities of enterprise, self-reliance and responsibility necessary for adult life, work and citizenship" (p 4). It was anticipated that colleges would operate over a longer school day and/or school year than LEA schools and students and their parents would have to be prepared to cope with these different organisational arrangements.

Colleges would serve a defined catchment area, large enough to produce 750-1000 pupils meeting the admission criteria. The size of catchment area and the criteria would differ from case to case but would include:

- pupils' general aptitudes as reflected in primary school progress
- pupils' readiness to take advantage of, and benefit from, the CTC education
- pupils' willingness to do homework
- parents' commitment to their children's education and training to age 18.

In terms of their funding and management, it was proposed that CTCs would be registered independent schools but would not charge fees or, themselves, be profit-making. Their promoters or sponsors from the business community, industry or voluntary agencies, would own or lease the colleges and provide "all or a substantial part" of the capital costs (p 8). The DES would pay grants for current costs direct to promoters. (The grant was expected

to cover what an LEA- maintained school in a similar area would cost.)

Staff were to be employed by the CTC governing bodies, whose members would be free to negotiate pay and conditions, although these would be expected to remain broadly in line with the maintained sector. CTCs, although they would generally be required to employ as teachers those with 'qualified teacher status' (QTS), could make exceptions for "individuals with other relevant background and experience" (p 7).

Proponents of the CTC policy claimed the colleges, as 'exemplar schools' (Taylor, 1988), would set a lead for LEAs to follow and enhance parental choice (Sexton, 1987; Denholm, 1988; Chubb and Moe, 1992; Dunn, cited in Whitty, Edwards and Gewirtz, 1993).

The response from industry to the Government's invitation to sponsor CTCs was somewhat muted (*Times Educational Supplement*, 27.6.87; Nash, 1988; Walford and Miller,1991; Whitty, Edwards and Gewirtz, 1993; Walford, 1994). Several large companies already had well-developed schools/industry links or Compact schemes, others made an input with their staff expertise rather than money (*Times Educational Supplement*, 26.2.88). Some industrialists were unwilling to be seen to favour a few schools at the expense of the maintained system and considered it better to improve the mass system, rather than support elite specialists (Ball, 1990; Fatchett, 1991; Walford and Miller, 1991).

The difficulties of finding sponsors and of negotiating for suitable sites in the originally targeted disadvantaged inner city areas (often Labour-controlled) resulted in "a considerable redefinition" of the location of the colleges (Edwards, Gewirtz and Whitty, 1992a, p 143). Nonetheless, the first CTC opened in Solihull in September 1988, on the refurbished site of a former comprehensive school (Walford and Miller, 1991). The first wholly purpose-built CTC opened in Nottingham a year later.

The slowness with which sponsors emerged from industry and the consequent expenditure of more government money than initially envisaged (Straw, 1988; Walford, 1994), meant

that only 15 of the proposed 20 CTCs were established and, in 1989, a subsequent Secretary of State announced that there would be no more CTCs than the 20 originally planned. In fact, only 15 materialised and, in 1993, the pilot programme was superseded by the Technology Schools Initiative (DfE, 1993).

Some writers have claimed that the 'new choice of school' reflected the concerns of a new Secretary of State who not only had recent experience of boosting information technology in schools but was anxious to retain the initiative on educational reform (Chitty, 1989; McCulloch, 1989b; Edwards, Gerwirtz and Whitty, 1992a; Gewirtz, Whitty and Edwards, 1992) and keen to build on the experience of the assisted places scheme (Walford, 1991a; Edwards, Gewirtz and Whitty, 1991).

Critical reactions came from many sources and were reported in the educational press. Local authorities were anxious that resources would be diverted to the CTCs which might also attract teachers and students from the mainstream (*Education*, 17.10.86; Association of Metropolitan Authorities, 1987; *Times Educational Supplement* 16.9.88 and 11.11 88; Morrell, 1989; Kay, 1992; Abbott, 1993). Practitioners had similar fears and warned of selection, privilege and a squeeze on scarce resources (Glazier, 1986; *Forum*, 1987; *Times Educational Supplement* 26.2.88 and 14.10.88). Teachers' unions feared that non-standard routes into teaching would dilute the profession (Bash and Coulby, 1989). Educational campaigners warned of the cost to the public purse of CTCs, both direct and indirect (through tax concessions to sponsors) (Benn, 1990) and of "the deeper social and political motivations we should be addressing" (Benn, 1987 p 9). Simon (1988) and the Socialist Educational Association (1987) made similar points.

Educationists and academics set the CTC policy initiative in a historical, political and sociological context. It was maintained that the roots of CTCs could be traced back almost 20 years to the criticisms, from the late 1960s, of educational policies which were perceived to have failed. Thus, the resemblance of CTCs to the proposed, but never fully implemented, post-war technical colleges was noted by Edwards, Gewirtz, and Whitty (1992a) and by

Pring (1987). Others considered that the genesis of the policy lay, variously, in the revival of a liberal political economy during the 1960s, the strengthening of the 'New Right' during the 1970s, and the 'social market' philosophy adopted by the post-1979 Thatcher administration (Chitty, 1987; Mathieson and Bernbaum, 1988; Whitty, Edwards and Gewirtz, 1993; McCulloch, 1989a and 1989b; and Lawton, 1994). Lawton, like Tomlinson (1994), suggested that the social market was a non-Tory idea which came to prominence during the first Thatcher administration. Lawton was critical of the market approach which saw education not as a social service but as a commodity to be bought and sold. He placed CTCs ("providing a superior tier for a minority") in his 'Minimalist' category of ideology (Lawton, 1994, p 18). Others, such as Warnock (1988), warned of the "deeply distressing" effect of CTCs on neighbouring schools, in particular on their science provision. (p 60) Vincent and Tomlinson (1997), writing not about CTCs but about home-school relations in the context of 'the public' and public policy in the free market, made the point that "the privileging of business interests in and approaches to the management and organisation of education" meant that "particular 'publics' are valued over others". (p 364)

Research on City Technology Colleges

Much has been written about CTCs, most of it critical. There have, however, been few empirical studies of the colleges. The most wide-ranging work, to date, has been carried out by Edwards, Gewirtz and Whitty and described by them as "researching a policy in progress" (Edwards, Gewirtz and Whitty, 1992b, p 79). The work resulted in several publications by the researchers (Edwards, Gewirtz and Whitty, 1992a and 1992b; Gewirtz, Whitty and Edwards, 1992; Edwards 1993; and Whitty, Edwards and Gewirtz, 1993) and at least one review symposium (Chitty, Weiner and Gleeson, 1994).

Briefly, the three researchers studied the development of CTCs in relation to major themes in contemporary social, economic and political theory. Their work assessed the influence of various groups and individuals of the political Right on Conservative policy making. The researchers suggested that some aspects of the CTC programme for shadowed the Conservative Party's subsequent thinking on taxation, housing and health (Gewirtz, Whitty

and Edwards, 1992). They traced the emergence of the CTCs and attempted to assess to what extent the 'new kind of school' had led to centres of innovation (Whitty, Edwards and Gewirtz, 1993). In Edwards, Gewirtz and Whitty (1992b) the authors highlighted the tensions between the 'modern' and relevant knowledge (assumed to be promoted by CTCs), the collaborative (progressive) learning to which many CTCs aspired - and which was evident in some of them - and the traditional views on subject hierarchy held by those on the political Right (the ideological proponents of the CTC initiative). Edwards et al concluded that "although the CTC initiative was ill-conceived and poorly implemented at national government level, the evidence about educational practice within individual CTCs is more mixed and throws up some interesting ironies". (p 79)

The research covered many issues beyond the scope of this thesis so there were few references in it to innovations in the use of staff other than teachers. However, in the discussion of their observations in colleges, Whitty, Edwards and Gewirtz (1993) reported efforts they had encountered to make technical staff "an integral part of teaching rather than a sophisticated but separate addition" (p 121) and noted the tutorial role of an IT technician who was not a qualified teacher.

Other empirical research on CTCs includes an evaluation of CTCs' selection processes (Murphy, Brown and Partington, 1990) and a study of school choice which had one CTC in its sample of 14 schools (Gewirtz, Ball and Bowe, 1995). Murphy, Brown and Partington concluded that technical problems (such as lack of relevant data) made it unlikely that colleges would meet the admissions criteria, set out by the Government, of a socially and ethnically representative group, covering the full ability range (DES, 1986). These results were supported in a small way by Gewirtz, Ball and Bowe who stated that the CTC in their study was "selecting in terms of ability even if ability is not one of the stated criteria for selection". (p 69)

The few empirical studies of specific colleges include Walford's account of the first CTC (Walford, 1991a; 1991b; Walford and Miller, 1991) and reports on two colleges by Elkin

(1996;1997). Walford and Miller, in their account of the introduction of CTCs in general, and in their detailed ethnography of one college in particular, argued that the failure to find sufficient sites and sponsors for the original proposals led to considerable "unplanned diversity". (p 148) Thus, whilst there were some 'greenfield sites', there were other colleges which were formerly fully maintained or voluntary aided LEA schools which were closed and then 'converted' or 'upgraded' and which re-opened as CTCs. Walford and Miller found fears that the first CTC, with better resources and salaries, would tempt local specialist teachers (particularly in science or IT) had not materialised. Rather, staff were drawn mostly from the maintained sector but over a large area and, since they increased their skills on the job, they added to the overall pool of expertise. The authors did not discuss in depth the role played by staff who were not teachers. They did, however, comment on the parity of esteem accorded to all staff and all subject areas and on the use of technicians with specialist skills to teach small groups. These people were "expected to be obeyed by students in the same way as teaching staff and have the right to give detentions or merit marks". (p 57)

Both reports by Elkin presented positive and uncritical pictures of two CTCs. The first report (Elkin, 1996) described how a "failing" LEA school was taken over and turned into a CTC, with most of the pupils but almost none of the former staff remaining. The report described how the school raised its standards during the first five years. The strategies employed, many of which have emerged from the extensive literature on school ethos and school improvement, were not unique to the CTC, as Elkin acknowledged. They included "determined leadership...(an) assertive and imaginatively managed curriculum...a working atmosphere which is bright, positive, enthusiastic and encourages self-esteem". (p 34) Two other factors, which undoubtedly played some part in turning round the failing school, were the initial investment by the keenly involved sponsor and the management's greater freedom over staffing. The "integrated staff of teachers and other professionals" (p 34) included a generous ratio of associate staff to teachers (1:2) which enabled teachers to shed some routine or specialist tasks and focus on teaching.

The second report (Elkin, 1997) dealt with a new, 'greenfield site' CTC. Elkin presented a similarly positive picture of the development and successes of the college, although she admitted the part played in its achievements by purpose-built, well-resourced facilities. The potentially negative consequences of the specific organisation of time and space in the college were overlooked.

It is apparent from this last section that a great deal has been written about the politics surrounding the introduction of CTCs. Some material has been presented in order to give a flavour of the arguments, but that debate will not be entered into here in more detail. It could be argued that it is not possible to consider the issue of associate staff without consideration of the socio/political context of, and the organisation of, CTCs as a whole. The purpose of this thesis, however, is not to judge the political, social or academic merits of what were, and to an extent still are, contentious institutions, but to focus on one aspect of the colleges - innovations in the development and deployment of associate staff. Some references will be made to the wider context throughout the thesis and the issue will be returned to briefly in the final chapter. The focus of this thesis, however, is the operation (including the cost-effectiveness) of the sample of selected innovative associate staff posts.

5. Cost-effectiveness analysis

Mortimore and Mortimore with Thomas (1994) suggested that terms such as 'cost-effectiveness analysis' and 'value for money' could provide a means of enhancing the educational opportunities of schools. The authors suggested that the concept of cost-effectiveness is wider than effectiveness although the concepts were closely related.

Cost-effectiveness analysis is concerned with the relationship between the learning of pupils and the human and physical resources available in schools. Its application allows financial and other resources to be assessed in relation to the educational outcomes sought by the school. Cost-effectiveness analysis employs a more extensive analysis of costs than is usually undertaken for conventional budgets. Set against other options which a school or college may be considering, cost-effectiveness analysis provides a framework for a more rigorous

process of reviewing alternative ways of securing the best educational returns on scarce resources. Alongside the requirement to identify cost-related items is the need to assess benefits. These will usually be qualitative but attempts can be made to identify them systematically.

Although the terms cost, effectiveness and analysis suggest clarity, in an activity such as education this is not always apparent or straightforward. There are no guidelines from research and practice, for example, on the effects of spending different proportions of the school budget on teachers compared with associate staff. Decision-making may occur in conditions of uncertainty or even, in the case of new institutions, in haste.

Mortimore and Mortimore with Thomas (1994), drawing on the work of Levin (1983), suggested a set of guiding principles on which to base the application of cost-effective analyses of staffing practices in schools.

'Fitness for purpose'.

In applying cost-effective analysis to the use of staff, schools are better able to assess whether they have the right mixture of staff to meet their needs. This involves being prepared to review traditional ways of working and asking whether people are doing the work for which they are best suited. Applying the 'fitness for purpose' principle means challenging working arrangements which have become such an established part of life in schools that they are taken for granted. In CTCs it can mean taking advantage of the opportunity provided by their greater financial autonomy and the less stringent restrictions on the employment of staff with, rather than a teaching qualification, specialist skills in certain subjects.

Staff audit

Staff audit involves reviewing the match between responsibilities and skills. Such audits can help identify gaps in expertise and provide information for staff development. Relating audits to 'fitness for purpose' enables judgements to be made about whether suitable people are doing the right kind of work and whether it would be beneficial to devolve some tasks.

The Concept of Innovation and Change in Education

currently undertaken by teaching staff, to other staff who might perform equally well but who might be less costly to employ.

Associated costs have to be recognised in choosing to implement a staffing innovation. These costs include not only the financial outlay in terms of salary and add-on costs (for example, national insurance), but the opportunities foregone, the alternatives which had to be sacrificed or postponed by the decision to spend money in a particular way on a particular post, and the costs in management time of supervising and supporting the postholder.

Mortimore and Mortimore with Thomas (1994) considered that, whilst not wishing costeffectiveness analysis to be equated with parsimony as an end in itself, the application of the three principles was a means to help managers select the least-cost alternative to achieve desired outcomes. It involved collecting information on the various costs of an innovation and setting them out in ways which allowed systematic comparisons with alternatives to be made.

Thomas and Martin (1996) further argued that such a cost-effectiveness framework alone was unlikely to prove sufficient. The organisational context in which such techniques were used had to be taken into account. If schools and colleges were to make the best use of their resources in conditions of uncertainty, specific organisational features (such as, "internal delegation" and a "dialogue of accountability") also needed to be in place.

Although few education studies have included cost-effectiveness analyses, it is likely that an increasing concern with value for money and the availability of international bench marks (OECD, 1996) will change this pattern. In the ESRC study the issue of if, and how, cost-effectiveness considerations played a part in the planning of innovative posts was addressed and an attempt was made to assess the cost-effectiveness of each post. That work is extended in this thesis and the results are presented in detail in Chapter Eight.

In the final section of this chapter a number of questions which arise out of an examination of the theories of Gross et al and of Fullan are identified.

6. Research questions

The studies by Gross et al (1971) and by Fullan (1991) raised a number of issues to do with change in North American educational settings. These issues needed to be explored in the context of today's English educational settings. The establishment of the CTCs provided an appropriate context because these institutions were established in order to be innovative; what better setting for the investigation of 'innovative' posts? The technique of cost benefit analysis was used in order to broaden the investigation and to provide a further criterion against which the value of the innovative posts could be judged.

Accordingly, the following six questions were formulated and formed the basis of this thesis:

- i) Had innovative posts been created in the CTCs?
- ii) What were their perceived benefits?
- iii) What were their perceived problems?
- iv) Were the posts cost- effective?
- v) How congruent were the findings of the study with the theories of Gross et al (1971) and Fullan (1991)?
- vi) Were there lessons for future theories of change?

The answers to these six questions will be developed in the following chapters. In the next chapter the methodology of the study is described.

Chapter Two

RESEARCH DESIGN AND METHODOLOGY

Introduction

The research for the study on which this thesis is based took place between October 1993 and November 1995. The proposed design and methodology of the study had been agreed with the ESRC, prior to funding. The methodology of the thesis, therefore, differed in depth rather than form from the ESRC study and extended the earlier analyses in the following five ways.

- i) The benefits and problems associated with the innovative posts had been assessed only in general terms in the (necessarily succinct) ESRC report. The thesis, however, provided the scope for a more fine-grain analysis and triangulation of many of the issues in relation to four areas of college life and experience: two concerned with the organisation of the administration and with teaching and two concerned with more personal aspects.
- ii) The short section, in the ESRC report, on the techniques managers adopted when introducing innovation, has been extended and supplemented by data on changes to the innovative posts over the two phases of the study and of respondents' experiences of managing and implementing innovation.
- iii) The cost-effectiveness results summarised in the ESRC report were subjected to a reappraisal in the light of further analyses of the phase two data. This caused the researcher to amend the evaluations made of some of the posts in the detailed 'cameos' of every post which are presented for the first time in this thesis.
- iv) The more detailed analyses of the data and the triangulation, where possible, of the views of different groups of respondents, along with the interpretation by the researcher, extended the methodology of the ESRC work by enabling a continuum of six categories of more (or

less) successful posts and postholders to be developed.

v) The 18-month gap between submitting the ESRC report and completing the thesis allowed time for the data to be not only re-analysed but reflected upon more fully. As a result, the discussion, in Chapter Ten, of the relationship of the findings to existing theory has been extended and, in Chapter Eleven, the role of institutional cultures in sustaining or limiting innovation has been added. There is, therefore, a significant amount of additional data and interpretation which is presented for the first time in this thesis.

The chapter has seven sections.

- 1. Rationale for the methodology
- 2. Research questions to be addressed
- 3. Negotiating access to the CTCs and drawing a sample
- 4. Fieldwork over the two phases of the research
- 5. Analysis of the data
- 6. Cost-effectiveness analysis
- 7. Discussion.

1. Rationale for the methodology

The decision about how many posts, and in how many colleges the posts should be studied, was crucial to the design of the methodology. Given the six questions set out in Chapter One, three possible approaches were contemplated:

i) A case study of a single institution, with intensive interviews with all members of staff, carried out over a two year period. The advantages of this approach, similar to those noted by Cohen and Mannion (1985), would have been the 'strong in reality' qualities of the data, which would have allowed attention to be paid to the 'subtlety and complexity of the case in its own right' (p 146) and for research material to be presented in an accessible form. The disadvantages would have included the difficulty of organising the amount of qualitative data generated and the lack of comparability with other

institutions. Case studies, whilst providing rich ethnographic data, can obscure the larger picture (Ozga, 1990). Moreover, with only a small number of CTCs and the degree of local, and sometimes national, publicity they had generated, it would have been very difficult to sustain the assurances of confidentiality given to participants. A case study of a single CTC would have been readily recognizable. With only 15 CTCs from which to choose a sample, the level of generalisability to other schools would probably not be high but, the more colleges in the sample, the greater the range of interesting posts likely to be included, from which it was anticipated some patterns might emerge and some useful lessons for other schools might be drawn.

- ii) A sample of posts selected from a sample of institutions, with interviews carried out with postholders and some of those who had been involved in planning and/or implementing the innovations. The advantages of this approach, in addition to those noted above, were that pre-selection of institutions and personnel to be interviewed would help eliminate less relevant cases, yet the scale of the study would still allow for in-depth interviews, generating rich data on the viewpoints held by different participants (Adelman, Jenkins and Kemmis, 1980; Kerlinger, 1970). The disadvantages would be that potentially interesting sites and cases might be omitted from the sample, there would be scope for interviewer bias and the findings might still have only limited generalisability (Cohen and Mannion, 1985; Walker, 1980).
- iii) A survey of all the colleges, with a self-completion questionnaire sent to all participants. The advantages of this approach would have been that consideration could have been given to all possible actors, the mainly quantitative data generated could have been more easily managed and analysed and, providing care were taken over question construction, the findings would possibly have been more generalisable (Selltiz, Wrightsman and Cook, 1976). The disadvantages would have been that the data might have lacked depth and richness, and the impersonal method of collecting the data would not have permitted answers to be probed and amplified, misunderstandings to be clarified

or non-responses to be avoided (Tuckman, 1972).

The second approach was considered more appropriate for the CTC study, for the following reasons. The principal theorists whose works were being drawn on in the study had, in the case of Gross et al, based their theory on the study of one school and, in the case of Fullan, drawn on a wide range of work - his own and that of a number of other researchers. The first approach would have enabled detailed findings to be reported, but from only one group of teachers and administrators - so that it would not have been possible to identify patterns or themes across several schools undergoing change. The third approach would have allowed only limited scope for the collection of detailed findings on different participants' perceptions of the same situation. A study on the scale reported in this thesis provided a compromise. Limiting the number of CTCs (to eight) and the number of 'focus' posts in each college (to four) allowed time and scope for the collection of a wealth of qualitative data. It was anticipated that by concentrating, in each CTC, on a small number of posts that were innovative but not too highly specialised, information on the development and management of such posts could yield information of potential value to other schools.

The initial decision was informed by the writing of Miles and Huberman (1984) and, when the time came to order and analyse the information gathered, confirmed by their revised work (Miles and Huberman, 1994). The authors wrote (in 1984), "Qualitative data are attractive. They are a source of well-grounded, rich descriptions and explanations of processes occurring in local contexts...the findings from qualitative studies have a quality of 'undeniability', as Smith (1978) has put it. Words, especially when they are organised into incidents or stories, have a concrete, vivid, meaningful flavour that often proves far more convincing to a reader...than pages of numbers". (p

2. Research questions to be addressed

As noted in Chapter One, the two-year study aimed to address the following six questions:

- i) Had innovative posts been created in the CTCs?
- ii) What were their perceived benefits?
- iii) What were their perceived problems?
- iv) Were the posts cost-effective?
- v) How congruent were the findings of the study with the theories of Gross et al (1971) and Fullan (1991)?
- vi) Were there lessons for future theories of change?

Researchers have debated whether a conceptual framework and a set of questions should take shape in advance of the fieldwork or whether the framework and the questions should emerge from the fieldwork and be 'grounded' in it (Glaser and Strauss, 1967; Diesing, 1971). As Miles and Huberman (1984) pointed out, however, the first approach may make sense in the study of little known settings, but within a more familiar social setting, such as a school, "a loose, highly inductive design is a waste of time. Months of fieldwork and voluminous case studies will yield a few banalities". (p 27)

In order to make explicit the theoretical assumptions set out in Chapter One, and to avoid a too-broad and potentially wasteful investigation, the six research questions, each with several subsidiary questions, were refined under five headings, as set out below:

i) Innovation

Had innovative posts been created in the CTCs?

Had the relatively greater market freedom of the eight CTCs enabled them to recruit more easily the people they needed for their innovatory staffing strategies?

Had the business ethos (which many CTCs aimed to create) led them to appoint staff

from outside the education frame of reference? Were people without formal teaching qualifications employed for teaching tasks? How were the boundaries established between teachers and other staff; and how permeable were they?

ii) Benefits of the innovative posts

What were their perceived benefits?

Were they different for different groups of respondents? Were some kinds of posts more beneficial than others? Were there unexpected benefits? Had there been any attempts to disseminate the benefits?

iii) Problems with the innovative posts

What were the perceived problems with, and criticisms of, the innovative posts?

Were they different for different groups of respondents? Were strategies for easing tensions emerging?

iv) Cost-effectiveness

Were the innovative posts cost-effective?

Why were they deemed so? Were there criteria for judging the cost-effectiveness of posts? Had an audit of staffing needs been executed? Were options systematically considered before posts were authorised? Were anticipated benefits calculated?

v) Theoretical issues

How congruent were the findings of the study with the theories of Gross et al (1971) and Fullan (1991)? Were there any lessons from the study for future theories of change? Was there evidence of the importance attached by Fullan to the 'meaning' of educational change to those involved in it? Could any generalizations be drawn from the findings? What were the implications of the study for policy makers, practitioners and researchers?

As Miles and Huberman (1994) pointed out, formulating the research questions, honing

them so that they become researchable, helps to focus and "bound" the data collection but also forces some sampling decisions. ("I am also beginning to make some implicit sampling decisions. I will look only at some actors in some contexts dealing with some issues", p 22). The sample needed to be what Kuzel (1992) termed "purposive". Crucial decisions, about how many colleges to include, how many interviews to conduct and with whom, had to be taken in the context of the time scale of the study and the resources available. It became apparent that "empirical research is often a matter of progressively lowering your expectations" (Miles and Huberman, 1984, p 36).

3. Negotiating access to the CTCs and drawing a sample

Negotiating access

Initial contact was made with the (then) City Technology Trust (later the Technology Colleges' Trust) in order to discuss the role of the Trust and how it might facilitate the approaches to the colleges. The Trust, through the acting Director, expressed support for the study.

Following this meeting a letter was sent to the principal of each of the 15 CTCs explaining the rationale for the study, the kinds of information sought, the nature of the demands likely to be made of those participating in the research, and the issues of voluntary involvement, confidentiality and anonymity. The letter was accompanied by an Information Sheet on the background to, and the rationale for, the study. The letter was followed up by telephone calls to the colleges to gain the principals' initial reaction to the request, to answer their queries and, where possible, to arrange a preliminary visit. Five colleges declined to participate on the grounds that they were too new, did not consider they had any sufficiently innovative posts or were already involved in other research.

Confidentiality and anonymity

The colleges were promised confidentiality and anonymity. They were told that neither the identity of the college or of any participants in the research would be revealed and they were given assurances that the findings of the study would be reported in anonymous form. Responses given to the researcher in the context of the one-to-one interviews would be treated as confidential. Whilst their information would contribute to the research findings, in any material emanating from the research, respondents and colleges would be anonymised as appropriate. (Adhering to this assurance subsequently necessitated some judicious phrasing.) The job titles, although not the tenor of the roles, of 23 associate staff have been altered in this thesis in order to preserve anonymity. It was explained to potential participants that, whilst the eight colleges and the CTC Trust would receive feedback on the research, it was not intended to provide individual feedback or to negotiate the findings (Nias, Southworth and Yeomans, 1989).

Preliminary visits

Preliminary visits were made to ten colleges throughout the late autumn and winter of 1993/4. The visits consisted of informal discussions, with particular reference to interesting-sounding staffing developments, with each principal and with one or more of the senior management team, usually followed by a tour of the college.

There were no formal interviews at this stage but a brief pro-forma provided an aide memoire so that similar information was gathered from each institution. Printed information brought back from the colleges included current prospectuses, lists of staff and their responsibilities, newsletters and, where available, development plans. In one college senior managers requested that a second meeting was held, this time between the researcher and a staff group composed of middle managers, teachers and associate staff. The questions asked of the researcher by staff reflected those noted by Bogdan and Biklen (1992) as being typical of prospective participants ("Why us?", "What are you actually going to do?", "What experience do you have of schools and of research?").

Field notes were hand written during the day of the visit. These notes were subsequently recorded and transcribed onto what Miles and Huberman called 'contact summary sheets'

- a one page form on which the main issues or themes which had emerged from the discussions, points relevant to the main research questions and any other salient information were noted. The field notes and the contact summary sheets were used in the compilation of a brief 'vignette' of each CTC under the following headings: setting and buildings; management and staffing; students; sponsors; facilities and organisation. This information contributed to the 'Profiles' drawn up for the colleges in the final sample (see below).

The sample of CTCs

Initially, it had been proposed to study seven colleges (of the 14 then operating). The size of the sample reflected the funding available. By the time of the first visits a 15 th college had opened. It was decided to study eight colleges rather than seven, in case one withdrew at a later stage. This did not happen, but keeping the eight colleges for the duration of the study placed some pressure on resources during the second phase. The identity of the eight colleges selected remained confidential as far as the researcher was concerned but, given the small number of CTCs nationally and the contact between them, it was likely that their participation in the study became known via the CTC 'grapevine'.

The sample could have been drawn in at least four different ways. A random sample of eight colleges could have been drawn from the 15; colleges could have been chosen according to how well they made up a representative sample, in terms of length of operation, specialism and geographical location; an opportunity sample could have been drawn to include colleges where innovatory staffing practices had been identified initially; the sample could have been drawn only from the colleges which had grown out of former LEA schools. The final decision was not taken until the preliminary visits had enabled information to be obtained on staffing practices in each college and on the number and type of associate staff posts.

The final list of eight colleges was chosen to provide a range of age (although all CTCs

were relatively new and none was more than five years old at the start of the research), a geographical spread and a variety of innovative-sounding posts. The eight colleges are described in Chapter Three.

The sample of innovative posts

As noted, it was decided to focus in detail on four associate staff posts in each CTC. The intention was to interview not only the postholder but his/her line-manager and, in each college, a teacher who worked closely with him/her, the principal, one other senior manager and up to two members of the board of governors and trustees. On the basis of information gathered during the preliminary visits, certain posts were defined as 'innovative' and selected for detailed study. For the purposes of the research, 'innovative' posts were defined as those which:

- had been developed to assume responsibilities formerly undertaken by the LEAs
 (such as finance, personnel and premises), which had other 'add ons'
- were deemed necessary for the promotion of the industrial and entrepreneurial thrust of the CTCs (such as development, training and industrial liaison)
- were able to provide 'leading edge' expertise in areas central to the technological mission of CTCs (such as information technology)
- which exemplified developments in the flexibility of traditional teacher support roles
- or which fostered links with parents and community in situations of relative political or educational isolation.

In addition, the sample of posts was considered (on the basis of information available at the outset) to have the possibility of providing useful models for other schools to emulate, in a climate of greater financial autonomy and awareness of cost-effectiveness, (assumed) increased parental choice, and the burgeoning of information technology. The posts were judged, however, not to be so CTC-specific that they would be unlikely ever to be found in, or be of value to, another kind of secondary school.

Agreement was reached with the eight colleges over their participation. A contact person in each college was identified. Copies of the Information sheet were sent to the CTCs for distribution to those likely to be interviewed.

The list of the 32 posts and their categorisation is in *Appendix One*. The responsibilities of the posts are described in Chapter Five.

Types of data

The data collected were mainly qualitative, since these were judged best to suit the purposes of the study (Bryman, 1988). They were supplemented with some quantitative information to aid the work on cost-effectiveness. Interviews were carried out in both year one and year two of the study, in order to provide some indication of the process and progression of change and of modification to the posts. The interviews provided a wealth of qualitative data.

4. Fieldwork over the two phases of the research

Phase one research visits

The research visits took place between January and June 1994. Colleges were visited for a period of three to five days in the same week, in both phases of the study. The timetable of interviews and their location was arranged with the contact person in each college. Brief notes were written or tape recorded during the day, in between interviews or whilst travelling, and were transcribed later. In line with Lofland and Lofland's (1984) advice, every effort was made to write or record the field notes on the day. In most instances the schedule of visits allowed for one week in a college followed by one week at the Institute of Education, listening to the tape recordings of the interviews, collating the interview data, checking queries and preparing the materials for the next week's visits.

Phase one interviews

Interview schedules had been devised, piloted and amended in the previous DES study



(Mortimore, Mortimore and Thomas, 1992). In the CTC study those instruments were modified and expanded to produce a version reflecting the specific research questions. The modified schedules were tried out in 13 interviews in one college. The modified schedules needed only minor further changes, so it was decided to retain the pilot data rather than lose four potentially interesting posts and risk a smaller sample if any college subsequently dropped out. The interview schedules were semi-structured. Questions which sought information on factual events were pre-coded. The majority of questions were exploratory (following Staessens, 1993): some of them had cues but many were open ended (see Appendix Two). This format was chosen to allow scope for respondents' experience and perceptions to be expressed freely but also to permit what Miles and Huberman (1984) called the "focusing and bounding" of the information collected, in situations "where everything looks important at the outset" and where, without care, the researcher can become "awash in data". (p28). There were slightly different (and different coloured) schedules for each group of respondents (governors/sponsors/trustees; senior managers; line-managers; teachers; and associate staff). There were, however, many questions common to most or all groups - to enable different perspectives on the same issues to be identified in a process of triangulation (Cannell and Kahn, 1968; Cohen and Mannion, 1985; Miles and Huberman, 1994). The schedules asked some general questions, for example, about respondents' perceptions of innovations in the way staff were recruited and deployed and about the use of associate staff in teaching. The majority of questions in each schedule were concerned with respondents' perceptions of one of the four 'focus' posts - how the post had come about; the planning and costing processes; the purpose of the post and any boundaries to it; what meaning the innovation had for the respondent; the benefits and problems encountered with the implementation of the post; and the continuation of the innovation.

Each schedule contained space for a summary of the main points which had emerged from the interview. This summary was completed after the interview and formed a running list of 'issues' to inform the analysis and interpretation of the data. Interviews were conducted with 18 governors, sponsors or trustees; 20 principals and members of the senior management teams (SMT); 28 line-managers; 27 teachers and 32 postholders. (In total, 125 interview schedules were completed for 118 respondents, as some senior managers were also line-managers and some line-managers were responsible for more than one postholder). All respondents were asked for permission to tape record the interviews. Only two out of 118 requests to record were refused. Each interview began with the researcher going through the Information sheet with the interviewee, reiterating the purpose of the interview and its contribution to the research, and reminding interviewees of the confidentiality and anonymity of their responses. Interviews lasted between an hour and an hour and a half.

As soon as possible after the interviews were completed the tapes were played back by the researcher and the respondents' replies entered on to clean schedules and checked against the field notes. During the week following each college visit, and before the next round of interviews, Profiles' were drawn up for each CTC. Each Profile drew on the vignettes and had a summary of each of the four posts, covering why the post had been selected for inclusion in the sample, how it had originated, what were the benefits and problems perceived by the different respondents, and any unusual or interesting issues. The Profiles provided background material for the cost-effectiveness analyses.

Phase two research visits

Access to the eight colleges for the second phase visits and interviews was requested in the course of thanking colleges for their participation and co-operation in the first phase. The second phase visits were scheduled to be carried out, as far as possible, in the twelfth month after the first visit. Arrangements for these visits were made during the summer term of 1994. The original timetable held except where, in two cases, a whole-college project and an OFSTED inspection meant that the dates of those visits had to be switched and where, in a third case, the visit was bought forward to allow the fieldwork to be completed within the time allocated in the research schedule. The research visits took

place between January and May 1995. Their duration and operation were much the same as in phase one.

Phase two interviews

Miles and Huberman (1984) noted that, although sampling decisions have to be made prior to fieldwork, "samples in qualitative studies can change...qualitative research is essentially an investigative process". (p 37) The phase two interviews were conducted only with senior managers, line-managers and postholders. The smaller number of interviews was partly due to the pressure on the project resources (the college visits, involving as they did, long train journeys and frequent overnight accommodation, were costly) and partly due to the focus of the second phase. This focus was on changes to staffing practices which had taken place since the first interviews, on associate staff views on them and on managers' techniques for coping with the introduction and implementation of innovation and change. The decision was taken, therefore, to concentrate time and resources on senior managers, line-managers and postholders, who were judged to be best placed to comment on change issues.

The schedules for the second phase interviews were piloted in the same CTC as were the phase one interviews. Schedules for the different groups of respondents were printed in the same colours as before. Again, only minor modifications were needed and so the data from the interviews were retained. Shorter and narrower in focus, the schedules covered the following areas: respondents' perceptions of any changes to staffing policies and practices over the year; changes to the focus posts; barriers to innovation; helpful management techniques and, finally, the lessons learned by the respondents about introducing or implementing innovation.

During the second phase a total of 77 interviews were conducted with 66 respondents. All were tape recorded. The same guarantees of confidentiality and anonymity were given as before.

Cost-effectiveness data

In order for judgements to be made of the cost-effectiveness of the 32 posts, principals (or their nominee, usually the senior staff member with financial responsibilities) were asked to complete a Financial Table for each post (see Appendix Three). was similar to one used in the earlier DES study, designed in collaboration with Professor Hywel Thomas. Completion of the 'A' boxes provided information on the hours of work per week of the new post and any new costs associated with it. These new costs included salary, add-on costs and national insurance; the 'setting up' costs (for example, new equipment); the estimated costs of the use of materials and space (including estimated costs of heating and lighting the room(s) used by the postholder); and the estimated cost of management time taken up by training, supporting and supervising the postholder. The 'B' boxes sought information on the sources of funding (from the existing budget or from new monies) and on resources released which off-set the costs (for example, rooms or equipment released, or savings from the salary of a former post not re-filled) or the estimated costs of time released if, for instance, the new post incorporated management duties formerly carried out by a more highly paid senior staff member. Finally, information was requested in the 'C' boxes on any other alternatives that were considered ('opportunities foregone') before the innovation was decided upon. The information provided for each post is presented in Chapter Eight.

In addition, the interview schedules asked a series of questions about the part, if any, that cost-effectiveness issues had played in the planning of the innovative posts. For example, respondents were asked whether there had been an audit of staff needs, whether other options had been considered, if the posts were considered to be cost-effective and, if so, why.

5. Analysis of the data

Consideration was given to the use, for the analysis, of one or more computer packages, such as Nu-dist (Richards, 1994). Although such packages have been found suitable for

many studies, computerised methods of analysis were not adopted by the researcher for several reasons - both practical and the personal. Addressing the questions raised by, for example, Weitzman and Miles (1993) on the burden of data collection and the constraints of time and resources, contributed to the decision. The use of computer packages would have necessitated a preliminary degree of confidence in the coding of material which could have made it difficult to generate new categories at a later stage. Furthermore, there was a risk that useful information might not be retrieved if the right key words were overlooked. The time needed to comb through the data and revise the inputs was not available within the time-frame of the study. The methods adopted to deal with the CTC interview data were, admittedly, time-consuming but they did allow some flexibility in adjusting categories and revising codings for the relatively small numbers of different types of respondents in each college. Decisions had to be taken "based on the goals and circumstances of the research being pursued" (Brannen, 1992, p xiv). Accordingly, it was decided that human processing by the "soft computer" (as Miles and Huberman, 1994, p 52, called the field worker's mind) would be more sensitive and costeffective.

Most of the analysis process was taken up with organising and making sense of the mass of qualitative data generated by the semi-structured interviews - in Levine's (1985) terms, the 'manual data manipulation'. The procedures developed for ordering the phase one data were repeated in phase two.

The colleges were numbered one to eight, in the order in which the initial visits had taken place. Following Miles and Huberman (1994), unique numbers were used as "locators of specific material" in the interview schedules. Within each college, every respondent was assigned a number (sequentially, according to the order of the phase one interviews). These identification numbers remained constant throughout the study, even though the order of site visits and interviews differed slightly in phase two. (Thus, respondent 2:16 was in the second CTC visited initially and was the 16 th interviewee in phase one.)

Within each phase of the study, as each interview was completed, the schedule pages were numbered sequentially. Page numbers went from the first page of the first interview in the first college, identified as 1:1:1, to the last page of the last interview in College 8, identified as 8:118: 3067. The same system was used in phase two, with the addition of the number 2, in brackets, before the college identification number. Thus, schedules were numbered from (2) 1:1:1 in the first interview in the first college, to (2) 8:116: 810 in the final interview in the eighth (and last) college to be re-visited. The procedures for identification and for preparing schedules for analysis in phase one were also repeated. When all schedules were completed and numbered they were photocopied and retained as master copies for reference.

Before attempting to order any of the responses, two sets of grids were drawn up. These were intended to facilitate what Miles and Huberman (1994) called "data reduction" and "data display". The first grid provided a framework for summarising the ordering of the data according to the schedule questions, the broad areas covered by the overall research questions and the groups of respondents. The questions on the schedules were grouped according to which of the broader research questions they helped answer. Each 'topic' group was assigned a letter, as follows:

A (box 1- 42): questions related to the creation of innovative posts, associate staff teaching and the boundaries between associate staff and teachers

B (box 1-48): questions related to cost-effectiveness in the planning and operation of the innovative posts

C (box 1-54): questions related to the perceived benefits of the innovative posts

D (box 1-48): questions related to the perceived problems of the posts

E (box 1-114):questions related to introducing and implementing innovation (planning, monitoring and continuation; clarity and capability; and 'meaning').

The schedule questions within each lettered group formed the left hand, top-to-bottom

continuum of the grids and the groups of respondents formed the left-to-right hand continuum along the top of the grids. Part of the grid for Section C is shown as an exemplar in Figure 1.

Figure 1 Grids for logging groups of related questions by group of respondents C - Research question on the perceived benefits of the innovative posts

Respond	Gov/spon	Principals	SMT	Line-man.	Teacher	Ass. staff	
Own role	C1	C2	C3	C4	C5	C6	
O&M of CTC	C7	C8	C9	C10	C11	C12	
O&M of teach/learn	C13	C14	C15	C16	C17	C18	
Students	C19	C20	C21	C22	C23	C24	
Postholder	C25	C26	C27	C28	C29	C30	
Unexpect.	C31	C32	C33	C34	C35	C36	
etc						etc	

As the relevant questions from each group of respondents were cut and collated (see below) a coloured line was drawn across the appropriate box. As the data were coded, a different coloured line was drawn across the first line. In this way the grids enabled a record to be kept of which questions from which group of respondents had been dealt with.

A second set of grids, similar to the Data Accounting Sheets of Corbett and Wilson (1991) (noted in Miles and Huberman, 1994) enabled one to see at a glance which colleges had been cut and coded and whether there were any missing cases. These grids had every lettered box down the right hand side and the eight CTCs, the N and the number of responses along the top. A tally mark was entered in the relevant box as each response was collated. An example of the grid for part of the same research question as was shown

in Figure 1, is given in Figure 2.

Figure 2 Grids for logging responses by research question and by college

СТС	1	2	3	4	5	6	7	8	N	Resp.
C1	111	11	11	11	11	11	11	11	18	17
C2	1	1	11	11	1	1	1	1	11	10
etc.										

Taking each completed schedule in turn, the responses to each question were cut out and stapled to a large index card with the full identification in the top right hand corner. For example, 3:38 C18 p 625 was respondent number 38, in College 3, whose response to the question on if, and how, her post benefitted the organisation and management of the college was entered on p 625 of the accumulated schedules. The replies for each lettered box were then placed together in bundles.

When all the responses to a particular question were cut and pasted and in one bundle, the coding process began. As noted already, some questions were pre-coded. These were questions which asked for factual information (for example, the frequency of meetings between postholders and their line-managers). The majority of questions were more open-ended and asked for explanations and perceptions. Some had cues. These questions were post-coded. The contents of each bundle of responses were perused and sorted into sub-groups which formed the basis for categories of responses. Abbreviated responses, reduced to a phrase or category, were entered on to large sheets of accountancy paper to form, in Miles and Huberman's terms, "meta matrices" from which "ordered matrices", or summary tables of frequency, were constructed. Using the reordered bundles of responses and the summary table for each question, the findings were dictated and transcribed, with quotations or references to quotes where appropriate. Since the responses had been entered longhand, assisted by the tape recordings, it was a straightforward, if time-consuming task, to incorporate at this stage even lengthy quotations into the record of the findings. Overall, almost 4,000 pages of schedules were

analysed by hand.

Once the responses were transcribed, the checking process included the entering of 'key words' in capital letters in the right hand margin to act as cues to the issues in the responses. Since the detailed questions had been grouped and analysed according to the main research questions, the compilation of the findings and the summary tables for each question broadly shaped the writing up of the research.

6. Cost -effectiveness analysis

As noted earlier, Professor Thomas had undertaken, as part of the original ESRC study, to analyse the financial data and to provide an independent assessment of the costeffectiveness of the 32 posts. Accordingly, he was sent the completed financial tables and the job description for every post, together with profiles of the posts drawn from the first year interview data. The information was summarised by Thomas in a series of 32 tables, accompanied by brief comments on his own assessment of the cost-effectiveness of each post. (The 32 summary tables are presented in Chapter Eight.) The researcher, on the basis of the more detailed information gathered during the visits to the eight colleges and the interviews over a two year period, added comments in each case on whether or not the posts were judged to be cost-effective. In this way, a 'cameo' was drawn up for every post. The judgements reflected Denzin's (1978) different kinds of triangulation: by method (interview), by data type (qualitative interview data and quantitative financial and job description information) and by researcher (visits over the two phases of the study). The judgements reflected not only the financial dimensions of the innovative posts but took account of the triangulation of the qualitative information from the postholders' and other respondents' views on the benefits, problems and changes associated with the post. The final judgements on the relative success of each post and postholder was made by the researcher and are reported in Chapter Eleven.

7. Discussion

The process of writing up the findings for the thesis brought certain methodological issues into sharper focus - issues which recurred throughout but which had not emerged with such insistence in the preparation of the ESRC report. Three such issues are noted in this section. Again, the thesis had the benefit of more detailed analyses and a longer time for reflection.

Anonymity

Walford (1991b) wrote of the problems of researching "a specific, named school which was at the centre of political controversy" (p 83). The study on which this thesis is based was of eight CTCs. The eight were not, of course, drawn from a national pool of thousands, or even from a regional or local authorities' pool of hundreds, of schools. They were eight colleges from a nation-wide total of 15, a small group of institutions most of which, like Walford's case study CTC, had been the subject of considerable media attention and some local hostility. Moreover, although geographically far-flung, the CTC formal and informal networks made it highly likely that colleges would be identified easily.

Maintaining anonymity was not easy: roles and responsibilities made some posts potentially easier to identify than others. This presented difficulties, particularly with regard to reports of problems with, or poor value for money from, some posts. It has already been stated that in the thesis, as opposed to the ESRC report, the data on benefits and problems were analysed in greater depth which allowed for some triangulation. There were instances, therefore, when postholders, who considered they were doing a good or at least a reasonable - job, were the subject of criticisms by colleagues or managers. Consequently, in the thesis, not only was the gender of some postholders altered, but the job titles of some posts were changed, although efforts were made not to obscure their principal purposes. Although franker reporting, using original job titles, might have made for a more gripping text, the assurances of anonymity given to participants would have

been harder to maintain.

Hawthorne effect

In interpreting the data there was a constant need to be aware of the Hawthorne effect (Mayo, 1933). Any study of reactions to innovation faces the difficulty that the simplest interaction may make the recipients feel special and that perceived benefits may be a consequence of 'change' actually happening rather than the intrinsic quality of the change itself. As Walford and Miller (1991) wrote of the CTC they studied, "being 'special' is almost a way of life" (p 155). The principals of the eight CTCs which formed the sample, most of their senior mangers and, indeed, the majority of those interviewed held positive attitudes towards the use of associate staff and were very willing to be interviewed about their perceptions and experiences. There was, therefore, a degree of "bias by participation" (MacGilchrist, 1994, p 76). It was possible that participants' awareness of their involvement in the study, their personal reflections on the interview questions and their responses to them in the first round of interviews, may have created a 'halo' effect (Mayo, 1933) in the way they subsequently performed as, or in relation to, innovative postholders.

Culture

The strength of the culture of the workplace, of schools and of CTCs, discussed in greater detail in Chapter Eleven, could perhaps have been anticipated and so have been addressed in the interviews.

Advantages of the methods adopted

The experience of carrying out the research met many of the expectations of the researcher and demonstrated that the choice of the methods (discussed in section one) was reasonable. The scope of the study, and the size of the sample, were such that:

- one researcher was able to carry out all the fieldwork
- the researcher got to know each CTC reasonably well over the two-year duration

of the study

rapport was established with participants - reflected in the full and seemingly
 frank responses from the different groups of respondents.

Limitations of the methods adopted

There were, however, limitations to the methods:

- the scale of the study (this limited the generalisability of findings)
- the lack of data from students (whilst the selection of students would have been difficult, the absence of their perspective was a limitation)
- the interval between phases one and two was rather short
- the inhibition on the identification of colleges (a case study approach to each college would have made triangulation easier but would have made it impossible to maintain anonymity)
- with hindsight, it might have been better not to have included governors/trustees
 in the sample. (They knew little about most of the innovative posts and, without
 their interviews, project resources could have been used elsewhere, perhaps in
 interviewing students.)

This chapter, by setting out the rationale for the methodology which was adopted and the research questions which were to be addressed in the thesis, explained what the study, prospectively, aimed to achieve. It went on to describe the procedures involved in negotiating access to the eight colleges, in compiling a sample of posts and in enlisting the co-operation of interviewees for the intended study. The chapter continued with an account of the implementation of the research - the pattern of fieldwork visits and interviews over a two year period. This was followed by a section on the procedures for reducing and analysing the data, including the cost-effectiveness data. The last section of the chapter included retrospective reflections that dealt with issues which had emerged with some regularity during the study and with the advantages and limitations of the research methods.

Chapter Three

EIGHT CITY TECHNOLOGY COLLEGES

Introduction

Chapter Three introduces the eight city technology colleges which made up the sample. The colleges were drawn from around the country. Six were CTCs which had started from scratch, of which three were in brand new, purpose-built premises; three were housed in extensively refurbished premises of former LEA schools to which new buildings had been added. Two colleges had 'evolved' as CTCs: that is, they had taken over former LEA schools, remained in the original (though refurbished) buildings and had taken on some staff and students from the 'old' school into the new CTC.

The brief descriptions of each college are intended to provide a succinct picture of the institutions and a context for the discussions in subsequent chapters. The presentation of the eight CTCs (drawn from a nation-wide group which numbers only 15) in a form which would also preserve, as far as possible, their anonymity, necessitated the imposition of a common format. The material in this chapter is presented here for the first time.

The chapter has nine sections.

Sections 1 to 8 describe each numbered college in turn, with the material for each college presented under the same five headings:

- setting and buildings
- sponsors
- management structure and staff
- students
- facilities and organisation.

This is followed by

Section 9. Discussion.

All the colleges were well-equipped with computers for staff and student use. All the colleges subscribed to the CTC aims of promoting learning in science and technology by placing greater emphasis on, and often devoting more time to, these subjects so there are few additional references to the CTC curriculum in this chapter.

College 1

Setting and buildings

The college was situated in London, in a socially mixed area of expensive Victorian houses and local authority flats. The college was on the site of a former LEA secondary school. The original between-the-wars buildings had been re-clad in distinctive colours, resulting in a new and high-tech appearance. The reception area was spacious, carpeted and comfortably furnished, resembling the reception area of a commercial company. (On a coffee table alongside sofas were displayed albums with photographs of, and press-cuttings about, the college.)

Sponsors

The principal sponsor was an electronics company. Another major sponsor was a computer company, after which the technology wing of the college was named, and which had provided industry-standard computers for students. Different sponsors had provided other technology and equipped the laboratories.

Management structure and staff

The college management structure was intended to reflect the partnership between education, industry and commerce. It consisted of:

- Chief Executive, a senior manager from the principal sponsor's company, who worked part-time for the company and part-time for the college
- Principal
- Five academic directors and a finance and administration director.

There were approximately 50 full time equivalent (fte) teaching staff and 33 associate staff. The importance of a whole college policy was stressed: all staff were treated alike as far as

possible; all attended meetings (as appropriate) and social events; all had appraisal and staff development opportunities.

Students

The college had approximately 1000 pupils. Applications were buoyant; in the year preceding the phase one interviews the college had been six times over-subscribed. At least 50 per cent of places were offered to pupils living in the 'home' borough. The college had reduced its catchment area but, even so, received applications well in excess of places. The students all wore uniform although the anticipated post-16 cohort would probably not be expected to do so.

Facilities and organisation

There were three main curriculum areas in three wings of the building: language and communication; design technology; and enterprise/world-resources. The language wing had a sophisticated language laboratory and well equipped science laboratories with computing, audio visual and technical support. Students had access to computer aided design (CAD) and computer aided manufacturing (CAM) facilities. The college had one computer for every three students. All computers were on the network. All students had an individual password which allowed them to log onto the system at a number of terminals in every part of the building. This facility, it was claimed, helped the development of cross-curricular work.

The college operated a five-term year. Terms were of approximately eight weeks duration and were followed by two-week breaks (four weeks in the summer). On three days a week the school day ran from 8.30 am until 5 pm. On Monday afternoons voluntary activities operated from 3.35 pm to 4.45 pm and on Fridays the college week ended at 3.30 pm.

The college restaurant operated as a franchise. It was open for parents, staff and students from 7.30 am. No cash changed hands: purchases were made with a swipe card and accounts settled retrospectively.

CTCs are not allowed to make profits so, like several of its fellow CTCs, this college had a trading company which offered services to local government and short training courses in health and education, the profits of which benefitted the college. The college also welcomed the opportunity these activities provided for forming links with local industry.

College 2

Setting and buildings

The college was situated close to the centre of a northern city. It was on a small site, surrounded by new housing and old warehouses. The building was purpose-built, two-storey, with a distinctly modern appearance. Floor-to-ceiling windows looking on to a central, tiered 'mall' gave an open feel and facilitated observation of students by staff.

Sponsors

The principal sponsor was an electronics company. The company was actively involved in the life of the college: one of the senior managers was vice-chair of the CTC governors and staff from the sponsor company had visited the college, advised technology staff and engaged in joint projects and fund-raising events.

Management structure and staff

The Principal, two deputy principals and three directors made up the senior management team (SMT). Below them were eight area or faculty managers. Then came heads of years and heads of departments, tutors (for Key Stage 3 and 4 and for post-16), subject teachers and technicians. There were approximately 60 fte teachers and 27 associate staff. The senior management strove to afford equal value to all staff.

Students

The catchment area covered the old boundaries of the city, an area considerably smaller than that covered by the LEA. This catchment area was rigidly enforced to ensure that the college maintained its commitment to taking students with a range of abilities from across an inner city area and to prevent, in the Principal's words, "unscrupulous Principals" from recruiting

students from the more advantaged suburbs. The LEA had a system of middle schools. Applicants to the CTC, therefore, had already transferred to a middle school when they had to decide whether to apply for further change. The college recruited from about 40 feeder schools.

The student body included a large proportion of Asians, more boys than girls. Approximately 150 students were admitted each year. The college was preparing for its first post-16 intake in the course of the research. The designated size of the college was 980 students. The students all wore black skirts or trousers (girls could wear trousers) with a sweat shirt of uniform design in one of three colours. (It was anticipated that post-16 students would not be required to wear uniform.)

Facilities and organization

The college was very well-equipped, particularly in new technology. During the life of the study new laboratories and technology workshops were being built and equipped. All staff were expected to be computer-literate after one term. New students were given introductory IT training in the vacation prior to entry and in their first term. All students had an individual password and could log on to machines in any teaching or study area.

The college was organised around a five-term year (eight weeks followed by two weeks holiday, with a month in the summer). The college day was from 8.30 am to 3.30 pm, although there were meetings, clubs and activities on some days until 5.00 pm. Students were timetabled in half-year cohorts at a time (approximately 75 in each half). Each cohort was taught the same subjects at the same time, in three or four groups, which allowed flexibility for both teachers and associate staff to work with sets or mixed ability groups.

The curriculum, like other colleges in the study, emphasised mathematics, science and technology. The college also aimed to develop an ethos which helped students to understand and respect all religions and their moral values and to develop free from prejudice and stereotyping.

Representatives from local industry were involved in the planning of business-related cross-curricular courses. Through its independent trading company the college provided profit-making customised training courses (in languages and IT) for local industry. It had also developed a programme of evening classes and leisure activities for the local community.

The college had a self-service restaurant which was open from 8.00 am. No cash changed hands: swipe cards were used. Adjacent to the restaurant was a glass-roofed terrace area with tables and seating for students who brought their own food.

College 3

Setting and buildings

The college was in the south east of England, situated close to a town centre in an area of light engineering and new housing. The college was on a split site, linked by a footbridge over a busy main road. The Principal's office, the main administration and the lower school were on one side; the upper school was on the other side. Most of the buildings had a new, high-tech appearance, the result of a re-furbishment of a former LEA secondary school. In the course of the study all ten laboratories were relocated on one site.

Sponsors

The principal sponsors were a property developer and a pharmaceutical company, both actively involved in the college. In addition, the college had twenty or so other sponsors. The Principal admitted to being fairly 'hard-nosed' about approaching them for expertise and for financial support for, and collaboration over, specific projects.

Management structure and staff

Below the Principal there were three vice-principals: industry and staff services; curriculum and development; and finance and administration. (The latter was a former accountant.) All other senior managers had a teaching background. Below them were four curriculum managers (student services, liaison and outreach, student programmes, and post-16 and vocational) and two pastoral managers (upper and lower school). There were eleven heads

of departments, each with a 'second'. The college had approximately 86 teachers and 42 associate staff. There was a staff mentor system and, at the time of the first interviews, the college was collaborating with a local university and a group of grant maintained (GM) schools in an initial teacher training consortium.

The Principal had inherited some staff from the former LEA-maintained school. Staffing innovations had to take account of that situation. Staff recruitment had always been more of a problem than might have been expected in such a well-endowed institution. This was claimed to be a consequence of the fast train service to London, affording access to higher paid posts in the City.

Students

The catchment area for 11 year olds included particular inner postal areas of the town and one outer area. The college admitted two hundred and ten students each year - up to 140 places were taken by pupils living in the area, or attending primary schools which had fed the previous school. There was open enrolment for post-16 courses.

There were several grammar schools in the locality. With the advent of GM status some grammar schools had opted out and were recruiting successfully. Between 40 per cent and 45 per cent of the age-group in the area were able to obtain a grammar school place. The intake of the former LEA secondary school, therefore, had been skewed to pupils of lower ability. Although the CTC was oversubscribed, it had proved difficult to recruit enough middle- to high-ability pupils needed for the normal distribution curve of ability in the college's intake.

Pre-16 students all wore uniform: post-16 students were expected to dress smartly as if for business. In the post -16 centre students worked as adults in a business environment.

Facilities and organisation

The college was keen to forge international connections, an aim which was supported with

enthusiasm by sponsors and governors. The initial refurbishment, therefore, had included the creation of a centre for overseas and business links. No suitable person had yet been found to direct the centre, however, so it had been absorbed into the college's IT provision. All students started learning French and added a second language in Year 8. All post-16 students studied a language as part of their core curriculum. Work experience and vocational education were given a high priority and approximately 50 post-16 students went abroad on work experience each year.

An industrial tutors scheme operated, similar to those described by Barber and Brighouse (1992). Under the scheme people came in from industry on a regular basis (for example, for half a day a week) over an extended period and were paired with tutor groups. Members of the governing body who were from industry were used to give advice where appropriate.

The two cafeteria (one on each site) opened for breakfast for students and their families between 8.00 am and 8.30 am. Registration was at 8.30 am followed by year assemblies which rotated throughout the week. The compulsory day ended at 4 pm and, on four days a week, enrichment activities took place until 5 pm. The college had not adopted a five-term year, partly because it was considered that it would be even harder to recruit experienced staff whose own children might have conflicting holidays.

College 4

Setting and buildings

The college was located in south-east London, in an area of large Victorian terraced houses, now mostly sub-divided. The borough was ethnically diverse and had considerable levels of deprivation. This was the only CTC in the study which operated single-sex education for students up until the age of sixteen. The girls' part of the college was located in what was formerly a voluntary-aided girls' school, housed in traditional 1930's school buildings. It was about a quarter of a mile from the boys' school, also formerly voluntary-aided. The boys' school had Victorian premises. The college minibus plied regularly between the two sites, transporting staff and Years 11 and 12 students, and delivering stock and mail.

At the transition to CTC status the sponsors financed a costly renovation programme which included a new three-storey technology building which housed electronics and design/textiles/art and food technology.

Sponsors

The principal sponsor was a City livery company.

Management structure and staff

The management structure changed considerably during the course of the study. Initially, the college had a Director and three Principals (girls' school, boys' school and cross-site Finance and Administration). Each school also had a vice-principal and an assistant principal. Below them were heads of departments, senior tutors and teachers. The college had approximately 90 teaching staff and 50 associate staff.

The Director had been appointed in the year before the CTC opened. The Principal of the girls' school was appointed in the term prior to opening: the Principal of the boys' school had been in post in the former school for several years. When the college was in the planning stages, the Director and Principals of the proposed CTC had to deal with considerable hostility, both external and internal. The LEA was opposed to the change of status. The staff at the boys' school were more favourably disposed to becoming a CTC than were their girls' school colleagues, some of whom departed. Those who chose to transfer to the CTC were assured of posts.

The college, consequently, inherited several staff from the two former schools. The CTC Director and Principals had been keen to retain what they considered to be the best traditions of the former schools, whilst welcoming the different orientation of the new CTC. Managing change, therefore, had a different dimension here from those CTCs which were completely new. Following a Review by external consultants, the management was restructured during the time of the study. Both the Director and the Principal of the boys school retired; the Principal of the girls' school was appointed overall CTC Principal; the

third former Principal was renamed Director of Finance and Administration. At the same time, the posts of vice principals and assistant principals were rationalised, although salaries were guaranteed at former levels for displaced staff.

Students

The college had retained the former schools' catchment area which covered the 'home' local authority and two neighbouring LEAs. Since the college was over-subscribed at the time of the study, moves were afoot to reduce the catchment boundaries. The college had an annual intake of 180 students. There were approximately 1,100 students on the two sites. Students whose parents were on income support could apply for a uniform grant and, if they lived more than three miles from the college, a free travel pass. All post-16 students who lived more than three miles away were entitled to a free travel pass. (The costs of these benefits were met by the sponsors.) All students wore uniform. Prefects (and staff) wore gowns for assembly.

Facilities and organisation

This was one of two CTCs in the study which had retained the three-term year, possibly because, at the time of the change from two schools to one CTC, there was so much resistance to other implications of the change of status. Parents had been given an assurance that single-sex education would be maintained for pre-16 students, a commitment which had imposed certain constraints on staffing and facilities during the early years of the CTC's operation. Most post-16 courses, however, were taught in mixed groups.

The college breakfast bar was open between 7.45 am and 8.15 am and the timetabled college day began with registration and assembly at 8.30 am. The formal timetable ended after the 3.15 pm break, although enrichment activities carried on.

College 5

Setting and buildings

The college was situated about a mile and a half from the centre of a Midlands industrial town.

The immediate vicinity appeared to be rural, although there were two large, and growing, housing estates bordering the grounds, albeit out of sight of the college. The buildings were new and spacious, constructed on two floors around a large central courtyard. There was carpeting throughout. The college was wheel-chair accessible.

Sponsors

The college was sponsored primarily by two local industrialists. One had qualified as a teacher but left the profession and made his name (and his money) in industry: the other was prominent in a national company. Other sponsors included a publishing company, an electronics company and a local radio station.

Management structure and staff

The Principal had two vice-principals and eight assistant principals who made up the senior management team. There was a departmental structure with each head of department having a cross-institution role (thus, the head of English also had cross-college responsibilities for quality and standards).

All teaching staff had a pastoral as well as an academic role. Every teacher was also a tutor (and, at the time of the interviews, six associate staff also had tutor roles). Tutors were responsible for about 20 students, acted as their advocate and were the first point of contact for a parent. They had a structured training course which consisted of two weeks' full-time induction in the vacation prior to taking up their appointment. Training was carried out by the Principal and an assistant principal.

There were approximately 70 fte teaching staff and 20 associate staff in the college. Some associate staff were being supported by the college in studying for either a first degree or a PGCE: some teachers were being supported in an MBA course, partly taught on-site in collaboration with a local higher education institution.

Students

The college had opened with admissions into three years (Years 7, 9 and 12) so that, from the outset, it had three cohorts of students. It had reached its full complement of 900 by the time of the study. The college was funded for an intake of 160 students per year but admitted, on average, 165. The catchment area was that encompassed by the Borough Council and the District Council. The college drew from over 50 feeder primary schools (pupils who were resident in, or being educated in, these two districts.)

Students were required to wear uniform which, it was believed, helped foster the corporate identity and business-like attitudes of the CTC.

Facilities and organization

The college was well equipped to provide for every area of the curriculum, with generous laboratory and technology resources and extensive sports facilities.

Every teacher had the equivalent of one whole day per week when they were not teaching. The classes were organized on a double-class system. Each year group was divided into four: two groups were in parallel and adjoining classes. These teaching groups were kept to a minimum of 20. This was achieved by every member of staff (with the exception of the Principal) having some teaching commitments. There was an agreed staff policy according to which heads of departments did not claim extra time for their management duties; these duties were carried out in addition to their teaching role. Every teaching member of staff had an equal amount of free time (unlike the findings reported by Campbell and Neill, 1991). The combination of the dual and adjoining classes and the use of associate staff to support, or work alongside, teachers meant that, if a tutor were to be called out of the class unexpectedly, the other adult in the adjoining teaching area could take over supervision of the activities. In this way the curriculum was not disrupted. It was claimed that the college had never had to employ a supply teacher and had never cancelled a lesson because of teacher absence.

The college had a five-term year which followed the pattern noted for other CTCs. The cafeteria opened at 8 am for students, parents and staff. Students used a swipe card for restaurant purchases - and for borrowing library books and equipment. The college day began at 8.30 am and lessons began at 8.45 am. The college operated a four-lesson day, although there were moves to change to a five-lesson day. During the first lesson (scheduled to last for an hour and a half) there was one quarter of an hour break, taken on a rotating basis, for 'breakfast'. The half-hour lunch break was also taken on a rotating basis, starting with the younger students in Year 7. This system meant that there was no mass exodus of students into corridors and outdoor areas since there was no single time during the day when all students were free. In effect, there was no 'lunch hour'.

The formal end of the college day was also staggered (from 4 pm for younger students, extending to 5 pm as they progressed up the college) but many of the enrichment activities carried on and the college remained open well into the evening.

There were almost no separate staff and student facilities, apart from the administrative suite. There was neither staff room nor sixth form common room. Instead, there were eight preparation/study areas around the college, with work stations, computers and ample table space, for both staff and students. Staff ate in the restaurant alongside students. Some cloakroom facilities were shared between staff and students.

College 6

Setting and buildings

The college was situated in the less affluent part of a Midlands borough. Although the immediate approach to the college was via residential roads with low-rise private and local authority housing, the area was dominated by three large, high rise, local authority estates. The college buildings had a high-tech appearance, although there had been extensive refurbishment of a former LEA school.

Sponsors

In the entrance hall was a board naming the sponsors. There were approximately 50 names on the list. The two foundation sponsors were a local manufacturing company and a finance company.

Management structure and staff

Since the college opened the management structure had altered three times in order to cope with expansion and change. In addition, there had been some staff turnover. In the Principal's words, "you can use staff creatively for two to three years" and then some of the original postholders had moved on. At the time of the study the relatively flat management structure consisted of the Principal, a deputy principal who was the director of administration and finance, and five area managers. Below these were five managers, and below them the rest of the teaching and associate staff.

The Principal's rationale behind the post of area manager was that it did away with heads of departments and heads of year; it kept good class teachers involved in their subject; it gave the opportunity for staff to acquire experience in administration which they would normally have gained in a head of year or deputy head post; it bridged the divide between the academic and the pastoral roles - and it saved the CTC money. Area managers' roles, therefore, had three elements: deputy head, head of department or head of year, and a one-third teaching timetable.

The five area managers, respectively, had responsibility for:

- language/community/cultural matters
- science and educational research and development
- mathematics, enterprise and human studies
- post-16 and expressive arts
- technology.

Beneath the area managers were five managers, responsible for:

• quality, staff development and students' support

Eight City Technology Colleges

- industrial, commercial and community links
- national curriculum technology
- intermediate technology
- post-16 curriculum.

The Principal reported that, in schools where she had worked previously, associate staff had been neither highly regarded nor integrated into the staff group. In the CTC she had attempted to integrate associate staff with the teaching staff, to raise their status in the eyes of teaching staff and students, and to use their skills, where appropriate, to teach either in the main curriculum areas or in enrichment activities. It was reported that *all* associate staff had some input to the mainstream or the enrichment curriculum and all were involved in staff development (including residential courses).

Students

The catchment area covered, approximately, a three-mile area around the college which took in the low and high rise housing estates. In addition, the college took five per cent of its intake from elsewhere. The immediate catchment area had high levels of unemployment (35%) and a significant proportion of lone-parent families. The college, like almost all the other CTCs in the study, was heavily oversubscribed (1000 applicants for 180 places in the previous year). Uniform was compulsory except for post-16 students.

Facilities and organisation

The college had opened with one cohort of 180 students: the number had risen to 1300 students. The college was well equipped. All students had their own computer password and could log on to the network at several points.

Unusually, this CTC had a three-term year, arranged to fit in with local schools. The facilities, however, were open year round except for Christmas Day. Staff were guaranteed a minimum of six weeks holiday (in practice they had closer to eleven or twelve weeks). The Principal, however, had the right to ask them to attend at any time during those extra weeks.

Eight City Technology Colleges

The college had links with between 500 and 600 companies which provided work experience for students or offered practical help and advice. Work experience was organised in the college through the Job Shop which also operated as a Job Centre for post-16 students.

Registration was at 8.20 am and again at the end of the formal day at 3.40 pm (2.35 pm on Fridays).

Twice a year for students in years 7 to 10 the timetable was suspended and all were involved in a cross-college and cross-curriculum project with their teachers and a number of associate staff.

The college had a profit-making arm, in the form of a separate company. In this way it was developing income generating activities by running training courses, evening classes and conferences; by publishing training materials; and by training and assessing NVQ assessors. The college also ran a (profitable)Youth Training Scheme, unusual for an 11-19 establishment, and collaborated with three higher education institutions in providing Initial Teacher Training.

College 7

Setting and buildings

The college was situated in an outer London borough. It was located in a quiet road which had a mixture of Victorian terraces and 1930s semi-detached houses, off a busy road. The college was visible from some distance due to the striking appearance of the new main building. This building housed the specialist facilities which supported the arts-based curriculum (theatre, studios and video editing suite), some teaching areas and the administrative offices. Across the playground was an older, traditional school building, a former LEA secondary school. The CTC leased part of that building from the LEA and used it for science and general teaching. The rest of the building was used by the LEA tertiary centre. There were no physical boundaries between the building used by the centre and the old and new parts of the CTC. Tertiary centre students could use the CTC cafeteria

which was open from breakfast time. They gained access by means of a modified swipe card.

Sponsors

The college was sponsored by many of the major recording companies.

Management structure and staff

The senior management team was composed of the Principal, two vice-principals, two other senior staff and the director of finance. The college had deliberately established a flat management structure: faculty heads were considered to be akin to primary school heads in terms of the responsibilities they carried.

The Principal and vice-principals spoke of "all staff" rather than teachers and associate staff. Keen to blur the boundaries between these two groups, they tended to avoid the term 'instructors' and 'professionals' ("teachers, too, are professionals") and to use the terms 'demonstrator' or 'practitioner' for staff who remained involved outside college in their field of expertise. There were approximately 90 fte staff.

Several staff members had a background in the performing arts and a few retained some direct involvement. Some of these staff had first trained as teachers: others were hoping to gain a teaching qualification through the Licensed Teacher Scheme.

Students

The college only took students from the age of fourteen to nineteen. It was over-subscribed (by a ratio of 2:1 at age 14 and over 3:1 at post-16) although the demand for places was not as great as in some of the other CTCs. At the time of the study there were in excess of 400 students. The college preferred no student to have more than one-hour's travel time to the college although for various reasons some were, in effect, 'boarders' who lived with the families of other CTC students. It was made clear to parents, however, that the college was not a boarding school and it did not take responsibility for the students out of college hours. Unusually, this CTC did not have a uniform.

Facilities and organisation

The college operated a five-term year which followed the pattern noted for other colleges. In term time the restaurant opened at 7.30 am. The college held some optional sessions from 8.00 am to 8.45 am but for most students the day started with registration at 8.50 am. The formal college day ended at 5.00 pm on two days, 4 pm on two days and at 1 pm on Fridays (although some post-16 sessions took place then). Students could use many of the facilities until 8 pm or 9 pm and some staff were always available during those hours.

The national curriculum, where possible, was linked to the technology, performance and administration of the arts. Post-16 students were offered a modular curriculum to which there was an open entry policy, although the college insisted on 80 per cent attendance on those courses. All courses led to a recognised qualification. Students were assessed at the end of every eight-week term and a record of their achievement was taken home.

College 8

Setting and buildings

The college was situated in an inner city area in the Midlands, in a socially and ethnically mixed neighbourhood. The buildings, on an incline above a main road, gave the impression of modernity, space and colour. Four connecting wings (or 'pavilions') were each devoted to a curriculum Division (for example, technology, science and mathematics) and were colour coded in the primary colours. Plentiful windows and two glass-roofed atria combined to give a feeling of spaciousness and light.

Sponsors

The principal sponsor was a former industrialist. Other sponsors included a pharmaceutical company, a High Street chain store, the local television company, the local electricity board and a local manufacturing company. The latter had sold to the college its former staff playing fields and pavilion: a project was being launched to raise funds for the renovation of the pavilion.

Management structure and staff

At the time the research was being carried out the college had an Acting Principal who had originally been appointed, prior to the college opening, as the director of finance and personnel. When the former Principal left the SMT was re-organised, on a temporary basis, to provide three senior divisional heads/vice-principals. These posts were responsible for

- business/humanities and language/key stage 4/GCSE/GNVQ
- technology/science and mathematics/post-16
- curriculum support and enrichment/student induction/IT network/ library and information services and reprographic and technician staff.

Beneath these senior divisional heads were three divisional heads (two with responsibility for pastoral care and one for finance and general purposes) followed by the teaching and associate staff. The Acting Principal reported that the college management, from the start, had wanted associate staff to be afforded the same respect and status as teaching staff. Associate staff were asked at their interview if they would be willing to offer any specialist skills or advice to students. Most of them did 'teach', either formally or informally, in timetabled classes or in enrichment activities. There were approximately 63 fte teachers and 33 associate staff, although there were several overlapping roles.

Students

The catchment area for pre-16 students was a two mile radius from the college (or as close as possible, within existing electoral wards). In addition, the college accepted applications from any pupil who attended a primary school in the area. The catchment included two areas with a high proportion of Asian families and one with a high proportion of Afro-Caribbean families. Between 35 and 38 per cent of the students came from the two main ethnic minority groups. Applications tended to outnumber the 168 places available each year. Initially the college had some difficulties attracting Asian girls. Anyone aged 16 to 18 could apply for the college's post-16 courses.

It was claimed that the selection of candidates was made so that the distribution curve was skewed towards the lower ability end of the spectrum. At the time of the study there were

Eight City Technology Colleges

815 students in the college.

Uniform was compulsory for students between 11 and 16. Post-16 students were expected to present a 'business' image and to dress accordingly.

Facilities and organisation

The college had a five term year which followed the pattern noted for other colleges. The cafeteria opened for breakfast before the college day started at 8.15 am (for older students) and at 8.45 am (for Years 7 to 9). The end of the day was similarly staggered, from 3.50 pm to 4.25 pm.

For students in years 7,8 and 9, 50 per cent of teaching time was devoted to technology, science and mathematics. This increased to 60 per cent from year 10. Students could extend their sports, drama and music activities in the enrichment programme which followed the formal timetable.

All staff (teaching and associate) did morning and lunchtime duties. At the time of the study the governors were reviewing the system of pay with a view to rewarding staff who were performing well.

The CTC had a trading company which was separately constituted as a profit-making organisation. In order to raise money for the college the company engaged in lettings, the organisation of courses, conferences and other functions and held some evening classes. There were plans for the development of further marketing activities (including the sale of software programs written by a member of staff). The college offered the community free use of its library facilities.

9. Discussion

The longer day

CTCs generally operate a longer day than most schools, working hours which are more akin to business hours. They are also open for 200 days a year, rather than 190 (Hagedorn, 1992). The total hours worked each week, however, varied from college to college, and according to day of the week. Moreover, the enrichment courses, which tended to be at the end of the formal timetabled day, were not always compulsory. The enrichment courses also varied from college to college, from year to year and according to the availability of staff skills (including associate staff). The longer day, as Whitty, Edwards and Gewirtz (1993) found, was not without its critics. The resulting pressures were reported, particularly in those colleges which had the traditional three longer terms. For example, one senior manager stated that "taking on business management ideas ignores the professional edge...we need time to top up our professional knowledge in order to do the job well". Moreover, some senior managers stated that longer hours, coupled with the expectation of a high profile and pressure to innovate, could make it hard to attract staff.

The five term year

Five of the eight colleges organised their year around five terms - in itself an innovation - but one which also had implications for the curriculum, for staff and student motivation, for the age profile of staff and for the culture of the colleges. Respondents reported that five terms of eight weeks lent themselves easily to a modular curriculum, with courses tailored to fit within the shorter term and synchronised with the system of assessments and reporting. Staff (and student) energy and enthusiasm, it was argued, could be sustained for the shorter periods; there was less opportunity for students to get bored; and, as Abrams (1994) noted, there was less time wasted by staff and students winding down at the end of a long term. There was also less risk that students would "backslide academically" (Kingston, 1997) after the long summer break.

The five term year was reported to affect the age profile of staff. This was because some senior management teams deliberately recruited young entrants to the profession who, fresh

from college, were perceived to have energy and drive. Managers considered such staff brought with them the latest ideas, were open to less traditional ways of working and were amenable to being socialised into the CTC mores. The five-term year tended to be popular with these younger staff who were less likely to have family commitments and who could take advantage of the off-peak holidays. It was noticeable - and commented on by principals and senior managers - that, whilst all the CTCs tended to have a group of older, experienced staff in higher level management posts (whose children would generally be older), those colleges with a five-term year tended to have relatively fewer staff in the middle range of age and experience (who might have been deterred from working in CTCs if they had children in three-term schools) and relatively more young staff (with no children as yet).

This staffing situation could have some drawbacks. As long as the five-term year remains an unusual practice, it will be unlikely to be attractive to mid-career teachers, for the reasons given. It was reported by senior managers in two CTCs that the lack of a group of middle - tier staff, with some solid experience behind them, could lead to relatively inexperienced staff being given demanding responsibilities sooner than would normally be the case - and too soon for some of them to cope. This had sometimes resulted in the responsibilities not being adequately met or in senior managers having to carry an undue burden of staff training and support.

Working to a different pattern to that of neighbouring schools, perhaps with a largely self-selected staff group weighted towards the young and malleable and the older and committed, with few in between, possibly fostered a sense of 'differentness' amongst staff. For students too, the different pattern of the school year possibly strengthened their sense that their school was unusual. The five-term year could, for example, affect the maintenance of ties with peers in neighbouring schools which had a three term year or, with the longer day, could reinforce the business-oriented ethos of the CTC. All of these factors could contribute to a CTC culture - an issue which will be returned to in later chapters.

Eight City Technology Colleges

This chapter introduced the eight CTCs around which the research was based. The picture which emerged was one of generally well-resourced institutions which benefitted from the generosity of sponsors, mainly in financial terms but also from advice, staff expertise and industrial exchanges and placements. Some of the colleges augmented their already generous resources with additional income-generating activities. The colleges attempted to fulfil the CTCs' aims by having a curriculum slanted towards science and technology, delivered over a slightly longer day and, in several cases, over a five-term year .

Chapter Four

STAFFING INNOVATIONS IN EIGHT COLLEGES

Introduction

This chapter addresses the first of the research questions set out in Chapter One:

Had innovative posts been created in the CTCs? Bearing in mind the definition of 'innovation' given in Chapter One, this chapter reports on innovations in staffing practices, in general, in the eight CTCs.

The data in this chapter were drawn from interviews with all groups of respondents. The chapter contains considerably more detail on the findings presented in the relevant section of the ESRC report. The data presented here contributed to the chapter by Mortimore and Mortimore in Bernstein and Brannen (1996).

The chapter has five sections.

- 1. Had the relative freedom of CTCs resulted in more innovative posts?
- 2. Had the relative freedom resulted in the recruitment of people from industry and commerce?
- 3. Were associate staff without teaching qualifications engaged in teaching?
- 4. Were there boundaries between what teachers and associate staff did and, if so, how permeable were they?
- 5. Discussion.

1. Had the relative freedom of CTCs resulted in more innovative posts?

Eighty per cent of respondents considered that the relative freedom of CTCs vis a vis the maintained sector had resulted in more innovative posts. Examples were cited of directors of finance and administration; managers of information technology (IT) and of premises, catering, lettings and marketing; and posts concerned with staff development, quality assurance and liaison. A small group of respondents, however, considered that the relative

freedom of CTCs had not led to any significant innovation. A similar number were uncertain. Sixty six of the "Yes" respondents could identify factors which had contributed to the creation of the innovative posts.

Table 4. 1 Factors associated with the relative freedom to create innovative posts

	Govs	SMT	LM	Ts	AS	Total	%
CTC curriculum	-	5	3	6	10	24	36.4
Culture of innov.	1	2	5	4	5	17	25.8
Easier from scratch	1	3	3	2] <u>-</u>	9	13.6
Fin. autonomy	1	3	2	-	2	8	12.2
In loco LEA	-	1	2	-	1	4	6.0
Efforts of Principal	1	1	1	1	-	4	6.0
Total	4	15	16	13	18	66	100

 $\overline{N} = 66$

Emphasis on a CTC-specific curriculum

Whitty, Edwards and Gewirtz (1993) pointed out that the Secretary of State who introduced CTCs in 1986 (Kenneth Baker) "believed strongly in the motivating effects of a more technological and practical curriculum, and in the transforming effects of IT on learning". (p 97) The authors cited CTC principals or their publicity material which stressed the colleges' research and development role. It was not surprising, therefore, that over a third of respondents considered that the colleges had the freedom to create new posts or to extend the scope of existing posts in order to support a curriculum weighted towards science and technology. Staff took seriously the challenge to be at the cutting edge of curriculum innovations, particularly in information technology, and some individual IT staff were involved in national developments. Moreover, all colleges had relatively sophisticated IT systems. Both factors called for high levels of technological expertise. (In the words of one principal "some inmovations are related to necessity".) Those who commented on the use of associate staff in supporting and, in some cases, shaping the CTC curriculum, noted the opportunity to draw on skills previously acquired in commerce or industry.

Culture of innovation

The development of a 'culture of innovation' was noted in a quarter of the responses. Respondents commented on a college ethos which welcomed and nurtured innovation. As one governor said, "We push innovation hard. We think it is important. We want innovative staff and are mudging the college to look for more". Managers spoke of conscious attempts to emulate a business (rather than a school) environment and culture, in keeping with the CTC mission envisaged by Fey (1991). These attempts, similar to those noted by Whitty, Edwards and Gewirtz (1993), included a longer school day, staff having business-sounding job titles, the lay out of commercial-looking reception areas and, in at least two colleges, the expectation that post-16 students would dress as if they were going to work in a business environment. Teachers and associate staff, in particular, drew attention to the need for all staff to pull together for the good of a high profile enterprise which, in some cases, was the recipient of considerable local hostility. (The political sensitivities surrounding the opening of some CTCs was referred to in Chapter One.)

Allied to innovation is risk-taking and, in some colleges, there was conscious encouragement for staff prepared to take a chance and support for them if ideas did not always succeed. One senior manager reported that he had tried to promote some of his ideas about the role of associate staff in his previous school but his former teacher colleagues had been unable to change. Their traditional views on, and expectations of, the contribution of different kinds of staff were rooted in their teacher culture. In the CTC, however, "If you have new ideas you can try them out. If they don't succeed you can work out why and abandon or modify them, and try again. Here it is so open to change". Other senior managers also stressed the advantages of staff knowing that changes to roles and responsibilities were to be expected.

"Easier from scratch"

A minority of responses (13.6%) presented the view that it was easier to grasp the opportunity to be innovative when one was starting with a blank page - with no history, no traditions, no "baggage". 'Greenfield sites' did not have long-established staff who might be set in their ways and hinder attempts at innovation.

Financial autonomy

The considerable freedom enjoyed by the new colleges over how they deployed their financial resources and the greater financial expertise needed (to manage large budgets and deal with complex payrolls) were acknowledged by respondents to be factors in the more flexible staffing policies than normally existed in schools ("Certainly without that degree of freedom, there would not be the posts there are"). In the words of one member of the associate staff, in a CTC which had been created from a former LEA school, "There are more people controlling the budget here. In the old days, money came from a trough. You just asked for more if it was needed. Now people are aware that it is their budget, they spend wisely, they protect it".

'In loco' the local education authority

The new CTCs received their funding direct from central government and had to take on many of the tasks previously undertaken by a local authority. They, therefore, had recruited staff able to handle substantial budgets, to hire and manage other staff, to oversee premises, and to deal with purchasing, catering and, in some cases, the transportation of students. As one senior manager pointed out, initially the college had needed a much greater proportion of associate staff than would a comparable school in a local authority since, without the supporting framework of an LEA, "everything had to be home-produced, paperwork and procedures all had to be devised". Although the ratio of associate staff to teachers had evened out, this early experience had led to a much broader deployment of associate staff across the whole college than the respondent had encountered in her previous career in the maintained sector.

Efforts of the Principal

A small number of respondents (6%) commented on the importance of the college principals in promoting innovation. One Principal was described as "a highly innovative manager who creates innovative posts, who sees people's strengths and plays to that". In another college the Principal himself reported: "We've not asked 'how innovative can we be?' I see our staff as our greatest resource. It's my job to use their potential to the benefit of the college and

Staffing Innovations In Eight Colleges

to the individual ... staff are asked what they have done, what they would like to do, what untapped abilities they have. Maybe we are able to foster ambition".

Some respondents added a cautionary rider to their otherwise positive remarks about staffing innovations. For example, one governor stated that, although the CTCs were probably more innovative than many schools, "I expect there are a substantial number of maintained schools whose record would be similar to ours". For other respondents, progress in staffing innovations had been slow, ("less than I would like, but not necessarily less than I would expect").

Overall, there was agreement that the relative freedom of CTCs had resulted in the creation of innovative posts. There was also reasonable agreement on the ways in which this had come about, with most respondents emphasising the specific technological nature of the colleges themselves as a major influence.

The second question focused on the type of people recruited as associate staff and on how their skills had been used.

2. Had the relative freedom resulted in the recruitment of people from industry and commerce?

Respondents were asked about the effects on staffing of the business and enterprise ethos of the colleges and the links with industrial sponsors. The responses are set out in Table 4.2.

It is clear from Table 4.2 that over three quarters of respondents took the view that a broad range of appointments had been made from outside education. These perceptions were held even by those respondents (such as most governors and associate staff) who would not normally be involved directly in recruitment procedures.

Table 4.2 Effect of business ethos on CTC recruitment

Response	Govs	SMT	LM	Ts	AS	Total	%
Yes, direct from industry	10	9	23	16	19	77	62.7
Yes, ex-industry & QTS	2	6	2	4	2	16	13.0
No, efforts failed	4	-	1	1	4	10	8.1
No conscious policy	-	5	-	4	1	10	8.1
Don't know	2	-	1	1	6	10	8.1
Total	18	20	27	26	32	123	100

N = 12Missing = 2

Direct from industry

Almost two-thirds of the respondents believed that colleges recruited direct from industry. Those recruited tended to have specific skills and experience (for example, in financial management) and were recruited for their ability to enable managers to meet the newly acquired needs of the independent colleges. In some cases, efforts were reportedly directed towards recruitment to particular curriculum areas ("In maths, science and technology we've looked for people with industrial expertise and possibly put in the advertisement that we would take someone...without a teaching qualification"). Some senior managers were reported as having a pragmatic approach to meeting curriculum needs ("The Principal would never say about a job 'you must have such and such a qualification' but goes for those people who have the added weight of experience"). This approach was considered necessary in order to maintain the technological thrust of the colleges and to foster links with industry and commerce. It is discussed in more detail in section three.

Ex-industry, with qualified teacher status

A minority of responses (13%) indicated that college managers looked for industrial experience only if it were allied with a recognised teaching qualification. Some respondents, who maintained that experience *and* qualified teacher status were the ideal, admitted they had arrived at that conclusion after earlier mistakes in appointments or after fruitless efforts to recruit suitable candidates. For example, one senior manager stated "There is a glibness

about thinking you can bring in people from industry as teachers. Nearly everyone here now is a qualified teacher". Another reported that if a teacher were appointed, he - as a manager - needed to spend much less time discussing strategies in the classroom but much more time pushing the teacher to be innovative. If a professional with specific expertise were brought in, the reverse was usually the case.

Efforts failed

A small group of respondents (8.1%) reported that, although the will was there, efforts to recruit from industry, with or without qualified teacher status, had failed. Though few in number, most of these responses came from the governors and from the associate staff themselves - the two groups of respondents most likely to have had business or industry experience. One governor lamented, "I hoped it would work but I don't think it has. There has been an attempt to go out and find engineers but they are not there. It's sad. I've worked all my life to get cross-fertilisation between the two sides It is difficult to recruit and keep people from industry".

No conscious policy

The same number of respondents (8.1%) suggested that managers gave priority to finding the best person for the job, regardless of background ("We always go for the best teacher - if they have industrial experience that's a bonus"). Only in cases where it was obvious that the broad experience of the world of work would be a particularly valuable qualification for a specific post, or where someone had the skills required and surpassed in other respects an applicant from the teaching profession, would these managers depart from their usual practice. Other respondents reported that the staffing balance was probably no different to any other secondary school, but that attitudes were more business-like in what they perceived to be the rather different culture of the CTC.

In the main, there clearly had been an intention to broaden the recruitment policies because of what industrial recruits were able to bring to the financial and commercial administration of the colleges and to the technological and business curricula.

The third question shifted the focus from recruitment to the colleges to the roles that associate staff played within them, teaching in particular.

3. Were associate staff without teaching qualifications engaged in teaching?

Table 4.3 shows that almost three-quarters of the respondents (72.9%), particularly SMT and teachers, considered that people other than qualified teachers were engaged in teaching activities. Even taking account of the difficulties of establishing what does and does not count as 'teaching', this was a high figure. (Many governors were not close to the day to day work of the colleges so only half of them were able to comment.)

Some respondents noted that, in line with government guidance when CTCs were established (DES, 1986), unqualified people taught solely or mainly in IT, or in other technological areas where advanced levels of skills were scarce. As one governor put it, "For this kind of school you need experts and teachers". Managers stressed the goals of the CTCs in relation to the need "to open students' eyes to the business world, to link the business experience of associate staff to parts of the curriculum". Associate staff with practical skills and first hand knowledge of industry were reported to have brought technological expertise into the classroom ("They add breadth and depth...they bring their experiences in industry and enhance the quality of the students' experience").

Table 4.3 Were associate staff without teaching qualifications engaged in teaching?

Response	Govs	SMT	LM	Ts.	Total	%
Yes	8	14	21	19	62	72.94
No	2	5	2	2	11	12.94
Don't know	8	-	2	2	12	14.12
Total	18	19	25	23	85	100

N = 93 Missing = 8

Some associate staff with experience in industry or commerce had been employed initially in administrative or technical support roles but had gradually taken on an additional teaching or instructing role. There were several reasons why this had come about, all illustrating the

opportunism of managers - and sometimes of associate staff themselves. Thus, the reasons included: stepping in to fill a temporary gap which then became part of the normal role; having an idea for an 'enrichment' or extra-curricular course which was adopted and, in some cases, became part of the mainstream curriculum; or demonstrating skills which managers capitalised upon in the mainstream or enrichment timetable.

Associate staff sometimes taught alongside qualified teachers but did not have full control of a group or class. In other instances, they initially supported or worked with qualified teachers in order to get used to discipline, standards and expectations but then taught groups - or, in some cases, whole classes - and played a full role within the curriculum ("They are mature, experienced people with a lot to offer").

Some associate staff took the lead in areas such as IT where they had greater expertise than the teacher. Others passed on their skills to teachers in staff training sessions. The following scenario described by one Principal was not that unusual. The college was organised around team teaching and supported self-study. This meant there were several opportunities for small group activities when associate staff could work with students. The Principal gave examples of technicians who possessed specific skills, sometimes at a higher level than any of the qualified teachers on the staff, and who worked both formally (with timetabled examination and enrichment groups) and informally (in the lunch hour) with students. In the Principal's words, "All that starts off by not compartmentalising people. I look at them - let them develop - facilitate - enable - that's my role". In the eyes of some governors and two senior managers, some of the associate staff were more fully prepared and had better schemes of work than their qualified teacher colleagues. For example, it was claimed "We've got some super unqualified people now and we've got some teachers not coming up to scratch...what matters is the ability to motivate students and to switch them on. You can either do it or not".

Allowing staff from industry or commerce, who had no teaching qualifications, to teach could, however, be problematic. Whilst welcoming such recruits for their skills and first-hand

experience, several senior managers and line-managers noted the care needed in making such appointments. They were wary of undervaluing teachers' professional expertise and warned of the risk of recruiting, from industry, candidates of insufficient calibre. They drew attention to the management time needed to support and train such staff for work in an educational setting, where different mores (for example, smoking at work) or expectations (for example, of students' efforts relative to achievement) obtained. However great their expertise, recruits from industry still needed to be able to communicate with, and manage, young people; to understand and use modern methods; and to be able to handle the appropriate teaching materials. As one Principal put it, "They need to be able to teach and communicate, not just lecture. We have recruited a few from industry but they have not coped well with new assessments, discipline and investigative methods". Another senior manager cautioned, "We want a positive experience of industry, not those running away. We want those with breadth, not those looking for an easy ride. We've had a few of them". Moreover, the pay differential between teaching and industry made it hard to attract into education those who had been successful in industry. Thus, a governor commented, "Teachers... are not paid well. If you take people from industry and pay them a teacher's salary they are probably under par".

Of the 11 respondents who had answered "No" to this question, only one was opposed to the principle of unqualified people teaching: the others appeared to be unaware of it happening in their college.

In answer to this question, therefore, it appears that a significant number of associate staff were engaged in teaching. The kind of teaching varied, with only a minority engaged with whole classes and the majority working with small groups or individuals. The fact that 8.1 per cent of respondents did not think that this was happening suggested that - in some cases - definitions of what constitutes teaching were not clear. The fourth question, therefore, investigated whether there were clear lines of demarcation between associate staff and teaching staff, what flexibility or overlap of roles existed, and what were respondents' views on these issues.

4. Were there boundaries between what teachers and associate staff did and, if so, how permeable were they?

Boundaries

The findings are presented in Table 4.4. It is clear from the Table that just over half the respondents did *not* perceive clear boundaries, although there were differences between the responses of the various groups.

Table 4.4 Were there boundaries between what teachers and associate staff did?

Response	Govs	SMT	LM	Ts.	AS	Total	%
No	5	12	18	12	14	61	53.1
Yes	4	4	8	7	16	39	33.9
Don't know	5	-	-	1	-	6	5.2
Other	-	1	2	4	2	9	7.8
Total	14	17	28	24	32	115	100

N = 125 Missing = 10

Some responses referred to ambiguity over the definition of teaching activities ("When does supporting a teacher in the classroom become teaching?"). Thus, a governor commented that, if he were to go into a classroom he would not necessarily know if the staff member was a qualified teacher nor not, "but I would know if the teaching was lacklustre". Senior managers were less likely than line-managers or teachers to perceive boundaries (only one quarter did so).

The lack of clear boundaries was, in some cases, the result of a deliberate whole-staff policy ("Determined efforts are made to involve staff as a whole") or of senior managers' roles in modelling parity of esteem ("There is an unspoken feeling that associate staff are part of the show"). In other cases it was a consequence of a pragmatic approach to students' and curriculum needs and who best could meet them: an approach which sometimes involved "loosening the boundaries".

One third of respondents thought that there were clear boundaries between teachers and

associate staff. The fact that proportionately more line-managers, teachers and (especially) associate staff than governors or SMT perceived boundaries, perhaps reflected a greater knowledge of day-to-day working practices and sensitivities over working relationships on the part of the first three groups.

Half the associate staff, the largest proportion of "Yes" respondents, perceived clear boundaries. Eight of them, who were not principally involved in teaching but who worked in administration, finance or premises-related posts, stated there were boundaries to their work with regard to disciplining students; expenditure; recruitment; pastoral work; and the organisation of teaching spaces. Another eight, whose role did involve some teaching, also perceived boundaries relating to disciplining students; constraints on the contact they could make with other departments or external agencies; setting, marking and assessing students' work; recruitment; and health and safety legislation governing certain equipment.

Nine respondents (coded as "Other") were equivocal. They reported that the maintenance of boundaries partly depended on the personalities of the associate staff involved and of the teachers with whom they worked. For example, individual associate staff were reported as having a personality ideal for a particular post, or as having moulded the post to suit their strengths. It was recognised, however, that when that staff member left, a new modus operandi would have to be negotiated with a successor.

Where boundaries existed they were maintained by means of job descriptions (which enabled people to say "it's not my job, therefore I won't do it"); the demands of the timetable; custom and practice; and a teacher culture which resisted change and attempted to preserve teachers' territory. Thus, governors of two colleges spoke of "the arrogance of the staff common room which is alive and well" and of "a cosy teaching profession which fixed things because it did not want interference". (Whitty, Edwards and Gewirtz commented that the presence of industrialists on CTC governing bodies could be seen as "marking the extent to which 'cosy' professional preserves have been broken into". 1993, p 102)

In some cases boundaries were reported to have arisen because of differences between the culture and expectations of the qualified teachers and of those associate staff who came with professional skills from industry. As one senior manager put it, "Teachers, because of their training, have an inherent understanding of global issues relating to students' education. Very often people from industry have not got that - they have experienced very concentrated specialisation and have never had to consider how that interacts with the other experiences of a student". This difference in approach could lead to associate staff - to the reported irritation of teachers - overlooking the effort a student may have put into a piece of work. Conversely, teachers' own confidence and 'street cred' could be affected negatively if students expressed greater confidence in outside 'experts' with "real experience in their specialism in industry".

The permeability of boundaries

Respondents were asked whether the boundaries - where they existed - were permeable or not and which situation they preferred. Even where boundaries were intended, most respondents acknowledged there to be, in practice, extensive 'grey areas' around the roles of associate staff in relation to those of teachers. As a line-manager and a teacher, respectively, reported, "The boundaries are clear on paper. She does not take a class - but on occasions she has"; "She is not expected to cover lessons - but she does".

Respondents noted that, if associate staff were working in teams with teachers, boundaries tended to be more blurred and to weaken the skills of associate staff improved or as, in the course of the academic year, new groups and new staff got to know each other and to gauge each other's capabilities. Grey areas were also reported where associate staff had greater expertise than teachers ("When she is timetabled to be with a member of the teaching staff and that teacher has not got the expertise, she takes the lead instead of a support role").

When asked for their views on the value of boundaries the replies indicated that almost one third preferred clear boundaries, two fifths favoured 'grey areas' and one fifth wanted there to be a mixture of the two. There were the following differences between groups.

Staffing Innovations In Eight Colleges

Grey areas preferred

Senior managers were considerably more likely to favour grey areas and permeable boundaries than were other groups. They reported not liking restrictive job descriptions ("because situations change and people need to be flexible"); wishing to increase the tasks delegated to associate staff; and making efforts to reduce existing boundaries ("The culture of the college is such that people work together, they are not status oriented...there is not a definite divide").

Only a minority of line-managers (six out of 28) preferred grey areas ("We need to be versatile and cross boundaries"). These line-managers stressed the increased flexibility they gained and the greater job satisfaction they considered the associate staff enjoyed. Ten out of 27 teachers also welcomed grey areas ("I don't like people in boxes... that's not what education is about").

Associate staff, again, was the sub-group most evenly divided in its response. The third who preferred grey areas welcomed the variety these added to their roles, the value of working as a team, the opportunity to try out new ideas and the satisfaction of having their specific skills acknowledged.

Boundaries preferred

A third of respondents preferred clear boundaries. The senior managers who took this view considered that boundaries reduced the likelihood of confusion and of possible tension over who was in charge. Most such responses, however, came from line-managers and teachers. This may have been because line-managers, in particular, had to deal with confusion arising as a consequence of slack boundaries and teachers were the group most likely to be threatened by what they might perceive as associate staff encroaching on their territory.

Line-managers (the largest group in favour) reported that clear boundaries reduced the risk of tension. These respondents voiced concerns over teachers having to take on some associate staff tasks because the latter were so busy developing the innovative (and often

Staffing Innovations In Eight Colleges

more interesting) aspects of their roles that they neglected their more mundane but essential activities. Boundaries "saved time because people knew where they were and what was expected of them".

In similar vein, teachers in this group reported that boundaries protected everyone's interests. As one put it, "Boundaries... avoid in-between areas where associate staff would be too stretched and where people in the department would expect too much".

Associate staff who favoured boundaries tended to do so to avoid confusion or being given too much responsibility ("I feel the responsibility in the end is the teachers'. They are in charge. I don't want to be seen as a teacher").

Both grey areas and boundaries needed

One fifth of respondents thought the situation was not clear cut: boundaries but also some flexibility were needed in order "to get the best out of everybody". Managers spoke of the need to be able to negotiate boundaries ("If they are set in concrete they militate against change") and the advantages of being flexible ("There has to be boundaries but we need grey areas for creativity and innovation, to allow ideas to flower"). Teachers also spoke of the need for flexibility and teamwork within boundaries. Associate staff reported how they valued clear boundaries allied with an open management style.

The answer to the fourth question, therefore, was complex. Although the majority of all the respondents expressed the view that there were not, nor should be, clear boundaries, sizeable minorities of each of the different groups of staff believed that there was, and - in many cases - should be, some demarcation.

Discussion

In answer to the first of the six research questions posed in Chapter Two, the findings presented in this chapter indicated that the relative freedom of CTCs *had* resulted in more innovative posts. There clearly had been an intention to broaden the recruitment policies to

bring in people with experience outside education. (It is possible that the creation of technology schools and the increase in grant maintained schools has led, by now, to similar innovations in those institutions.) It also appeared that a significant number of associate staff were engaged in teaching.

Recruiting candidates from outside education had not always been easy, nor had it always been successful. Those who had acquired expertise in one context were not necessarily able to pass it on in a different context. This chapter did not directly seek respondents' views on the advantages and disadvantages of broadening the staff base - those issues will be raised in relation to specific posts in subsequent chapters. Some of the evaluative comments reported above, however, gave some tentative indications of the effect of certain kinds of posts on teacher professionalism and leadership and of which kinds of associate staff posts might be expected to work better than others. It is apparent from the data reported thus far that there are a number of organisational tasks in schools which do not need to be carried out by education professionals. Those associate staff who bring scarce financial or management skills to assist senior education professionals in, or relieve them of the burdens of, their administrative responsibilities and so allow them more time for educational leadership, are likely to be valued. Similarly, those with the technological or business skills to support the administration or further the CTC mission in relation to the technology curriculum and industrial links are also likely to be welcome. Bringing in people from industry and commerce can extend the body of specialist knowledge available to teachers and students and free the former to concentrate on teaching and the curriculum.

Where the culture of the institutions encourages parity of esteem and the use of the skills of all staff, the integration of new posts and postholders will probably be more, rather than less, smooth. If the newcomers are able to adapt their previous work culture to the educational culture of the colleges and if the education professionals perceive them as complementing their own role, the staffing innovations will probably fare well. If, however, the newcomers bring with them cultural norms and expectations incompatible with those of the CTCs or if teachers perceive their presence as a threat to their professionalism, the innovations will be

Staffing Innovations In Eight Colleges

more likely to founder. There were intimations of this in the reported views on boundaries and grey areas. These issues will be explored in greater depth in subsequent chapters which deal with the 32 posts which were the major focus of the research.

Chapter Five

THE 32 INNOVATIVE ASSOCIATE STAFF POSTS

Introduction

The selection of the 32 innovative posts for detailed study was discussed in Chapter Two. It was noted there that the posts chosen were those which appeared to be sufficiently innovative to have the possibility of providing useful models for other schools to emulate, but not so extreme or CTC-specific that they would be unlikely ever to be found in, or to be of value to, another kind of secondary school. This chapter introduces the posts and their incumbents. Information is presented on the genesis of the posts, on why they were included in the sample and on the roles and responsibilities of the postholders. Some indication is given as to why it was considered that the posts might, or might not, succeed. The information in this chapter is derived from the preliminary visits to colleges, from job descriptions and from interviews with all the respondents: it is presented here for the first time.

The 32 posts (17 men and 15 women) were grouped into three broad categories. Most of the 10 posts in the first category (*support for management*) provided examples of the ways in which CTCs have separated infrastructure management from educational management. One post was at senior management level; five were middle managers (reporting directly to a member of the SMT and with their own line-management responsibilities).

The 13 posts in the second category (support for the curriculum) provided a range of skills predominantly directed towards facilitating the work of teachers or, by their direct contributions, enhancing the curriculum. Four were middle managers; another two reported to heads of departments but had their own line-management responsibilities.

The 9 posts in the third category (support for both management and the curriculum), as the title indicates, provided support for both the management/administration and the curriculum.

One post was part of the SMT; four were middle managers. Two of the remaining four were hard to classify. They carried no management responsibilities but had quite high profiles in, and beyond, the colleges.

The three categories were not rigid and, if anything, they became more fluid in the course of the study. In this chapter, however, the posts will be presented within each category. The list of posts is in *Appendix One*.

The chapter has four sections.

- 1. Posts mainly supporting management
- 2. Posts mainly supporting the curriculum
- 3. Posts supporting both management and the curriculum
- 4. Discussion.

1. Posts mainly supporting management

The ten posts in this category were in six colleges. Four posts had *site and buildings* management as their main responsibility. The posts were selected because they could have implications for how other kinds of schools, with fully delegated budgets, manage their sites and because of the additional dimension to each post.

The genesis of the four posts lay in the new tasks taken on by CTCs. Since they were independent of LEAs, the colleges had to undertake, and pay for, many premises-related tasks formerly carried out by the authorities. Colleges undoubtedly welcomed their greater financial independence but had to develop their own networks of suppliers and tradespeople. Therefore, the two needs (for cost-effective maintenance and for postholders with a wide range of buildings-related skills) had been met by the creation of the four posts. In addition to, or instead of, the traditional caretaker role, the four postholders (who included one woman), between them, had responsibility for tenders and quotations for building works; for devising the energy policy and overseeing the energy budget; for maintenance contracts for boilers, chlorination and window cleaning; for overseeing computerised heating and

maintenance systems; for security and college transport; for fire fighting equipment and fire drills; for the line-management of caretaking, cleaning and catering staff; for commercial and community lettings and, in three cases, for maintaining sports grounds and pavilions.

In addition, the four postholders each had an additional, college-specific role. The SMT of one college had sought, at the interview stage, to capitalise on the previous experience of the postholder by combining the new post of site manager with another new post of welfare officer. In this latter role the postholder dealt with students who were taken ill, or had an accident, whilst at college. He also supervised the students' use of the restaurant at lunch times.

The opening of a second college was preceded by a significant refurbishment programme. The postholder, who had many years of experience in the building trade, had assisted the CTC Project Manager.¹ When the college was ready to open, the postholder was asked if she would take the site/buyer post. In the line- manager's words "I created the post... you take the person first...then look at the job". In the buyer role the postholder was in charge of the central purchasing system for all materials and equipment for the college. Although heads of departments controlled their budget, all orders and invoices were channelled through the postholder.

A third college inherited a split site with separate sports fields. A logical and cost-effective line-management structure was needed, one which did not take senior managers' time and which could provide an efficient system of emergency cover for the three sites. The postholder was responsible for the college minibus, which transported staff and senior students between sites, and for the reception and distribution of goods and equipment to all parts of the college.

104

¹ The Project Manager of a CTC had a major responsibility for raising sponsorship and for seeing through the project from inception to opening. The role should not be confused with one of the 32 'focus' posts with the title 'projects manager'.

The 32 Innovative Associate Staff Posts

The fourth postholder was attracted by the CTC's aims with regard to inner city children ("Here was an opportunity to give them a start in life - a bit of a lift - rather than knocking them down"). He responded to an advertisement for the post of "a caretaker with a difference". In addition to his site and staff management role, the postholder's skills and interests provided a small input to the formal curriculum (for example, to projects on energy and computerised building management systems) and a greater input to the students' extracurricular activities (for example, badminton coaching and the Duke of Edinburgh Award).

At the beginning of the research it was anticipated that these four posts would be deemed successful if they could be shown to bring specific experience to the colleges, to take from senior managers the burden of some of their newly-acquired responsibilities (and to do so in a cost-effective manner) and to justify the opportunistic linking together of two different needs in single posts. There would be a risk, however, acknowledged at the outset, that skills learned in one context might not transfer easily to an educational setting or that somewhat disparate strands might not knit well together.

The next two posts in this category had parent liaison as a major component. The political isolation in which, initially at least, many CTCs operated, placed a premium on good relations with parents, community and media. (These considerations, to varying degrees, influenced the development of some posts in all categories.) There were, however, aspects of these posts which could have relevance for other schools. The first post was chosen because it also drew together responsibilities for particular groups which, in other schools or colleges, would usually be dealt with by separate staff, if at all, but which all schools, to a greater or lesser degree, are having to address in their market-oriented world. The second post was an example of how a new college, in a hostile local authority, had set about developing links with parents, of how senior managers were able to employ in a new post individuals known to them in another capacity in the college, and of how posts could be shaped by the personality of the postholder.

The genesis of the two posts was similar. The senior managers and governors of the two new college were aware that parents were taking a risk by choosing to send their son or daughter to new and untried institutions which, in one case, had met with considerable antipathy. It was thought parents needed reassurance, information and support since they had many questions and uncertainties. Dealing with these took teachers' time which was "not good for the college and not good for the kids".

The first post had three major components: parent communication; income generation; and public relations.

- The postholder was the first point of contact for parents. She had direct access to teachers and to senior managers in resolving queries and was responsible for checking that parents received a prompt reply. She compiled a weekly letter to parents and a termly magazine.
- The postholder set up and marketed commercially-oriented language courses and seminars for industry, business and the local community.
- The postholder was responsible for publicity and media relations; for links with sponsors; for visitors and for organising some college events.

The second postholder was also the first contact for parents and was located at the reception desk at the beginning and end of the school day, where he could meet, or take telephone calls from, parents. In addition, he maintained students' records and database.

These two posts could be expected to succeed if the postholders managed to sustain positive relations with all the various groups. There was a chance that the need for parent liaison staff might diminish as the colleges became more established in the community and if local hostility receded.

Two finance and administrative posts reflected the financial and recruitment autonomy of CTCs and the expertise and administrative support this called for. Specialised finance posts, some at senior level, are becoming more common both in schools in the maintained sector (which have delegated budgets) and in grant maintained schools (which have greater

independence). Both the posts were established before the colleges opened. The more senior of the two posts was a director of finance and administration who, when first appointed, had to plan everything "from scratch...at the start every piece of paper was blank". The post had three major strands of responsibility: managerial, financial and administrative.

- The *managerial* role included site maintenance, personnel matters and the linemanagement of most associate staff.
- The *financial* role included preparing estimates of income and expenditure, preparing and delegating budgets, contributing to the development of the college's financial policies and responsibility for the college's trading company.
- The *administrative* responsibilities included the maintenance of personnel and salary files and oversight of the college restaurant.

The second post had evolved from an earlier role in the CTC Project office, created before the college opened and when it was preparing to admit its first intake. Initially concerned with student admissions, staff recruitment and administration, the post had developed into a personnel post with responsibility for compiling payroll information for the auditors; liaison with the Inland Revenue and other agencies; maintaining personnel records; and, initially, providing part-time secretarial assistance to a member of the SMT.

These posts took over both the routine and the more responsible tasks which, traditionally, have been seen as the province of head teachers or their deputies, or tasks which schools have not previously had to undertake but which their new status of CTC has made essential or desirable. It was anticipated that the posts would be beneficial to the extent that postholders freed senior managers for their strategic or pedagogic leadership roles.

Two systems manager posts were chosen as examples of colleges drawing on specialist skills acquired in the business world. Senior managers in several of the colleges reported how they had debated the advantages and drawbacks of having one senior postholder with overall responsibility for both the IT network and the IT curriculum or of having separate posts. In two colleges the decision was taken from the outset to have two separate posts. In the first

college, it was considered that the size and complexity of the site and the equipment warranted one full-time systems manager post, with no curriculum responsibility. In the second college, the creation of the CTC from a former school meant there was a rapid increase in IT equipment but no one on the staff with adequate expertise to manage the network. Senior managers had accepted that *ad hoc* assistance from teacher "first aiders", with only limited IT expertise, would be inadequate.

Each post had an extensive brief. Thus, one post included responsibility for:

- maintaining and updating the programs in all computers in the college (approximately 240 machines) except for those in the finance department. (The college used to have maintenance contracts but these were deemed not to be cost-effective: the postholder and her team did most of the maintenance in-house.)
- managing IT budgets and assessing whether new equipment was needed
- maintaining computer systems for student records, SATs results, the registry, attendance (using an optical mark reader) and glossaries from statement banks for students' Records of Achievements (ROAs) and reports.

The role of the second postholder was similar but less broad although the postholder's contributions to staff training and to promoting IT in both administration and across the curriculum were deemed important.

It was anticipated that these two posts, combining scarce expertise with the potential to save on significant maintenance costs and the ability to contribute to staff development, would be welcomed and would benefit their respective institutions.

Several of these ten postholders contributed to teaching or instructing in mainstream or enrichment courses. For example, site/facilities managers contributed to science projects, the public relations postholder did some language teaching; the director of finance had attended students' business studies seminars and worked with students on developing a litter policy for the college, the personnel postholder provided some work experience and a systems managers ran a computer club.

Some of the posts were more unusual than others, had few (if any) parameters to guide managers or postholders and so, potentially, offered scope for the over-zealous postholder or the opportunistic manager. It was possible that some posts might elicit negative reactions from teachers, critical of the costs or unwilling to cede aspects of their traditional roles to the new incumbents. These issues will be returned to in subsequent chapters.

2. Posts mainly supporting the curriculum

Of the 13 posts in this category (drawn from all eight colleges) all but two had some formal or informal instructing or teaching components. Three postholders were qualified teachers, of whom two did not want a 'proper' teaching post. A fourth postholder had a diploma which qualified her to teach in further education: three others were training (part-time) to qualify as teachers.

The category included four *technician posts*. Three of the postholders were, or had been, senior science technicians. The senior technicians, between them, carried out a wide range of tasks, many of them traditionally associated with the role (routine maintenance and repairs; oversight of health and safety regulations in the laboratory; ordering and checking of stock; and supporting science teachers with the preparation of practical experiments).

The posts were included in the study for a variety of reasons. One senior technician exemplified the development of a post according to the postholder's known capabilities and her role in a new situation. The postholder was reported as influencing the direction of the science department to an extent deemed unusual in a technician post. The role had been shaped to include the supporting of curriculum innovations in technology and science, as well as some managerial and staff development input. In addition, senior colleagues reported that the postholder, because of her qualifications and her industry experience, was able to contribute to departmental discussions of 'A' level chemistry issues and the resource implications of science innovations. She line-managed and trained a team of six technicians and identified targets for the departmental Development Plan. The postholder, in her

research and development role in the use of IT in science, devised practical experiments which she trialed before staff used them with students and she advised older students on their individual experimental projects for science 'A' levels or GNVQs.

The second post was intended to facilitate cross-department deployment to allow more flexible and potentially more cost-effective use of technicians' skills. The postholder headed a team of six technicians and was responsible for their deployment not just in science but in the mathematics and music departments and in the library.

In the third example the college was facilitating progression for the postholder from technician to qualified teacher status by sponsoring her on the Licensed Teacher Scheme (LTS). The postholder, accordingly, had shed some technician responsibilities in order to assume a gradually expanding teaching role in science and mathematics. She worked under supervision from her line-manager mentor or team-taught alongside the head of department. The innovation was reported to make sense for the postholder (in terms of her career development), for the department (which could be more flexible over the courses they offered) and for the college (which retained a valued staff member).

The fourth post was a video/film technician in a college where the range of complex equipment warranted skilled technician support. The postholder's routine responsibilities included overseeing the video-editing suite ("Its my area; I look after it"); checking the loan and safe return of equipment to staff and students; overseeing the identity-marking and the transport of equipment; and monitoring the health and safety requirements in the department. In addition, the postholder was involved in the production of promotional videos which were a source of income generation and/or PR for the college and she made video recordings of college events. As the college's most qualified person in video editing, she instructed students on editing their own course work videos.

These posts had the potential to relieve line-managers and teachers of many routine tasks. In addition, three postholders used their knowledge and skills to teach, instruct or support

students directly in the laboratory or studio. In the two cases, where the posts had developed in CTCs which had been former LEA schools in which the postholders had also worked, some resistance from staff who were also former colleagues, might be anticipated.

Three teacher/technician or technician/tutor posts provided examples of how college managers were quick to grasp serendipitous opportunities and were prepared to be adventurous in responding to unsolicited applications. One of the postholders was a qualified technology teacher who, once qualified, did not want the responsibility of teaching. The college, in its early days, was looking for adaptable staff who could fill more than one role. The postholder (a teacher/technician) fitted a dual role of technician (primarily) and technology teacher (when necessary). In design technology he had a traditional technician role (preparation of materials, care of the workshops and stock control). However, the support the postholder offered teachers in the workshops often merged into teaching, as he offered guidance and advice to individuals or groups; demonstrated particular skills and tasks; and acted as lead teacher in some areas of the design technology curriculum where his expertise was greater than that of his teacher colleagues.

The other two posts were examples of the flexibility and willingness of new CTCs to respond to people from outside education and to use their skills and expertise in a developing institution. They also illustrated how the colleges could provide a progression route from technician to qualified teacher status. Thus, one postholder (with engineering experience) had approached the skeleton senior management team of a new CTC. Two senior staff visited the postholder in the workplace, as a result of which a job offer was made. The postholder spent forty per cent (and decreasing) of the week on technician duties and sixty per cent (and increasing) in teaching or supporting teachers. The technician role involved being responsible for preparing materials and equipment for teachers, for maintenance and repair, and for stock control. In her teaching role she shared six teaching groups with a technology teacher. She also had her own tutor group. The postholder taught computer-aided design (CAD) and computer-aided manufacturing (CAM). She drew up lesson plans (which were discussed with the head of department), assessed students' work and wrote their reports.

The third postholder in this group went to a public meeting for prospective parents just before the college opened. "Desperate for the CTC to succeed" he wrote and offered his services as a "generally useful person with an artistic background". The Principal discussed job possibilities and the postholder joined the staff in their second term. The job evolved as the postholder revealed more skills. Initially, he supported the head of art in routine housekeeping and technician tasks and as "a general gap filler". Later he designed and maintained a database for attainment levels in the technology department. The postholder's role continued to develop until he taught in three main curriculum areas (art, technology and IT) and, with a head of department, devised a new BTEC course module which he cotaught. Like the previous postholder, since working in the CTC he had embarked on a part-time degree with a view to training as a teacher.

These three posts could not only free line-managers and teachers to spend more time teaching, they also had the potential to broaden the learning opportunities offered to students, by virtue of the postholders' specialist skills (acquired, in two cases, outside education). The opportunism of senior managers in employing two postholders who had made direct approaches was a gamble which might reap rich rewards or which might lead to disappointment on one or both sides.

The next two posts were concerned with the *library and learning resources*. These posts were included because they illustrated the aims of CTCs which, from the outset, afforded a high priority to the use of learning resources, in the broadest sense. In addition, most schools are now aware of the need to learn about developments in data storage and retrieval. Both postholder were chartered librarians. They managed their respective library/information centres and their staff teams. They carried out the routine librarian tasks of ordering, classifying and cataloguing materials; provided information to students and staff in a variety of forms (print, CD ROM, videos, *etc*); developed and maintained links with other information - providers at local, regional and national level; and provided a range of careers and further education information. In addition, both postholders had devised curriculum skills

courses which they taught, in timetabled periods, to younger students in order to foster information retrieval, text scanning and note-taking skills. The library/information centres (and the postholders' time) could be booked for periods when tutors could send students to work on particular investigations. The two postholders were responsible for maintaining order and discipline in their centres. (One had the authority to sanction students by banning them for a specified period). The expertise of these two well-qualified postholders seemed likely to benefit students and staff in institutions committed to the development of information handling and the use of IT across the curriculum.

Two of the remaining four posts focused on *external liaison*. The posts were expected to forge links to foster the image of the colleges, particularly where there was local antipathy, but they were chosen for their potential value when many schools are developing links with industry. In line with the CTC philosophy, both posts attempted to link industrial and commercial organisations to the curriculum and to foster a continuum of educational experience from primary to secondary, to tertiary and to higher education or to employment. The success of these two posts was likely to depend on the extent to which they managed to forge the necessary links outside the CTCs whilst maintaining their credibility with teacher colleagues.

The last two post in this category were both *media oriented*. They provided examples of two colleges seeking professional expertise from outside education and, in one case, of responding to a local initiative. Media studies were seen in the colleges as popular courses which motivated students but which, if they were to have 'street cred' with students and employers, needed not just teaching skills but a professional input from people with experience outside education. In one case this had resulted in the post of media instructor. The postholder was in charge of the tv/video studio and editing suite and did some teaching of the media option on the BTEC courses and on the practical components of 'A' level media studies. He had helped to write curriculum material, set and marked students' work and led staff training workshops.

In the second college the Principal had capitalised on the enthusiasm of the local radio station in search of another outpost. The Principal had obtained funding to equip a broadcasting studio in the college and had agreed a shared post of broadcaster/tutor with the radio station management. The postholder broadcast a magazine programme live from the college each morning. Students played little part in this although they had delivered some linking announcements and devised their own radio advertisements. The college benefitted from the public relations role of the post. In the afternoon, the postholder taught some of the BTEC media options (not core units). She prepared and marked students' work, wrote their reports and offered extension studies in radio production.

The holders of these two posts brought with them valuable skills and outside contacts to enhance what were likely to be vocationally useful and popular courses. The success of the second post, which had the potential for conflicting roles and loyalties, was likely to depend to some extent on how harmonious the dual working arrangements proved to be.

Several of the posts described in this section freed teachers from a multitude of routine 'housekeeping' and minor administrative tasks, thus allowing them more time for their pedagogic role. In addition, the specialists skills of many of the postholders enabled colleges to offer a wider range of course options.

3. Posts supporting both management and the curriculum

In this category there were nine posts drawn from five colleges. Three of the posts combined the oversight of the *IT network* with oversight of the *IT curriculum*. The posts were examples of the recruitment of people from a business or an industrial background: all three postholders had such previous careers. The recruitment of two of the postholders also represented the drawing into the colleges of particular individuals whose expertise was already known - another example of managers' opportunism in staffing matters. One postholder was a qualified teacher: another had embarked on a part-time PGCE course since joining the college

The postholders' dual roles were broad. On the network side, they had responsibility for the maintenance of computer hardware, televisions and videos, printers and audio equipment; for the testing of electrical equipment; for off-air recording; and for the servicing and repair of all the above equipment ("if it plugs in, its my responsibility"). The postholders were also expected to ensure that IT equipment was purchased as economically as possible and two of them managed IT capital and consumables budgets. On the curriculum side, a high priority was placed on national curriculum technology, an area in which CTCs were expected to be exemplars in the field. For two postholders, their curriculum planning and teaching roles involved responsibility for IT and /or information systems at key stage 3, key Stage 4 and (for post-16s) GNVQ. One taught an 'A' level humanities course. Another taught a technology class in the college's enrichment programme. All three postholders provided staff training in IT. The postholders line-managed IT technicians: two had also initially line-managed curriculum co-ordinators and teachers in the IT department and a third continued to do so. All three had an 'advisory' role with their SMT, in that they were expected to be what one described as "something of a star gazer", able to advise SMT on the direction of the volatile IT industry. They were, therefore, expected to keep in touch with developments through attendance at conferences and exhibitions and through maintaining a network of contacts.

The three posts seemed likely to ensure that a high level of IT expertise would be available for staff and students and that the CTCs' technological goals could be furthered. There was a possibility, however, that the pressure of the two roles would be excessive, that a postholder's competence in one aspect of the role would not necessarily transfer to the other or that teachers would resent associate staff having curriculum or line-management responsibilities over them.

The next two posts had some responsibility for vocational and staff training and income generation. The posts were chosen to reflect the colleges' desire to link statutory education with meeting community needs (and thus fostering good public relations); the flexibility to respond to innovations in qualifications and assessment; and the awareness of the potential

for selling services, via the separate trading arm, and thus generating income for the college.

Each post had a broad brief. The first postholder ran a Youth Training (YT) Programme (more usually found in FE institutions). This role included initial referral, careers liaison and internal verifying for awards. She supervised the placement of the young people with an employer. The YT students were in their work placement for four days a week and had one day in college when the postholder provided the academic content necessary for the NVQ qualification. The postholder also trained college staff to verify GNVQs, ran external evening courses leading to an NVQ for play workers and provided some staff training in IT.

The role of the second postholder had changed as initiatives had been set in train and new challenges or needs had arisen. Initially responsible for establishing BTEC National courses, the postholder then became involved in NVQ qualifications - managing the college's NVQ assessment centre and training and assessing assessors. This facility was offered in-house, to college staff, and externally, to those from other institutions who paid for the training, thus generating income for the college. The postholder was a form tutor to a group of BTEC students and a member of the college's Youth Training team.

Both these postholders had considerable knowledge of the grant-giving and training awards bodies so were in a strong position to promote new courses and methods of assessment.

The remaining four posts had little in common (although two did have a graphic design role) so they are treated separately. The first post was an example of the willingness of a college to allow scope for new ideas and to capitalise on unsolicited offers of help whilst also attempting to meet several somewhat diverse needs of the college. The postholder was responsible for projects outside the normal curriculum. These projects were primarily intended to generate income for the college (for example, promotional videos for commercial companies). The postholder was also expected to meet the college's reprographic needs (both curriculum-related and administrative), to oversee the reprographic department and to manage the equipment-leasing budgets. She was responsible for the college's desk top publishing.

The 32 Innovative Associate Staff Posts

She also ran a college sports team. This postholder, by persuading senior managers to let her try out her ideas for income-generating projects whilst also meeting more routine needs, had the potential to demonstrate the rewards to be reaped by some risk-taking appointments. The success of the post was likely to depend on how well the different strands of the role fitted together.

The post of the second graphic designer was less wide-ranging. It was included because of the increasing emphasis in schools on desk top publishing and a corporate image and the expectation that curriculum materials and course work will have a professional appearance. The postholder was responsible for designing the logo and printed materials to promote the public image of the CTC. She designed and produced all the marketing material, many internal documents and, with teachers, some curriculum and examination materials. She instructed staff in desk top publishing techniques and on how to use Apple Mac in the IT curriculum. She advised some older students on the lay-out of their course work projects and she also ran a college sports team. The post was likely to succeed if staff considered they benefitted sufficiently from the skills and services provided.

The next post represented a cross-college approach to the management and deployment of technicians. Although similar in this respect to posts described earlier, it is the 'add-ons' which made this post interesting. The postholder line-managed a team of nine technicians who reported directly to him. As line-manager, he ensured that technical services were provided to teachers. As the health and safety officer, the postholder was responsible for organising the legally-required safety checks, for keeping up-to-date about legislation and for developing the college's policy in that area. The postholder was responsible for staff training in first-aid, in IT and in desk top publishing and he was the examinations co-ordinator for the college. The 'add-ons' to the post included the postholder's teaching and enrichment activities. Approximately one third of the postholder's time was spent teaching. He taught some IT and, in the personal and social education (PSE) department, he taught first-aid to students in Years 7 and 8. The postholder had written and taught health and safety modules on two GNVQ courses. The postholder was also involved in the college's enrichment

activities. He ran the Duke of Edinburgh Award scheme and organised after school clubs in science and model making. He was a qualified instructor in a number of outdoor pursuits and was able to accompany students on residential courses.

At the start of the study it was considered that the rational approach to technician support was likely to be welcomed by teachers, although there might be resentment at their loss of authority over technicians formerly department-based. The wide range of skills the postholder could offer would probably be seen as an advantage but the amount of formal teaching he did might generate some hostility.

The last post is that of a senior manager. It was considered unusual to have someone who was not a qualified teacher with cross-college curriculum responsibilities and line-management responsibility for several middle managers who were qualified teachers. The postholder had been attracted to the college because "the CTC offered me the opportunity not to be hampered by lack of a teaching qualification". She was in charge of learning skills, key stage 3 curriculum and the enrichment programme. She taught some IT and PSE; organised the cross-college SATs; and arranged room allocations. The postholder line-managed six section heads (three curriculum and three others). She was in charge of relations with the public and the media - a key function in a situation of political isolation from other schools in a hostile local authority. She was a member of the SMT. This post seemed a brave appointment, the success of which would probably depend on how well the postholder met the various demands more usually made of someone with conventional teaching experience.

4. Discussion

In this chapter the 32 posts have been introduced. The chapter has described the origins of the posts and what each contributed to the life of the new institutions in which they were based. It was not always easy - or indeed possible - to place the posts in a college hierarchy. This reflects, perhaps, the unusual nature of some posts. Only two posts were part of the senior management teams of their respective colleges. Thirteen posts were at middle management level (three of which were close to, but not members of, the senior teams) and

The 32 Innovative Associate Staff Posts

a further four had a line-management role. Another three posts had no line-management responsibilities but seemed to be accorded middle manager status.

At this early stage only the most tentative prognoses could be made as to which kinds of posts might be more - or less - likely to succeed, and why. Subsequent chapters will seek to demonstrate, on the basis of interview data and financial information, the benefits (Chapter Six) and the problems (Chapter Seven) associated with the posts and whether or not they were deemed to be cost-effective (Chapter Eight). The final evaluations of every post will be made in Chapter Eleven.

Chapter Six

BENEFITS OF THE INNOVATIVE POSTS

Introduction

The focus of this chapter is on the second of the research questions posed in Chapter One, in relation to the innovative posts: What were their perceived benefits? The three categories of posts, with their respective emphases (supporting management; supporting the curriculum; supporting both management and the curriculum) are taken in turn. In the ESRC report there was an overview of the perceived benefits of the posts. In this chapter, as a result of further analyses, the benefits are examined in relation to four aspects, two organisational and two personal. The detailed findings on those four areas and the reflections on the data which make up the final section are presented here for the first time.

The chapter has nine sections. For the sake of clarity, each section is introduced in the following paragraphs. With the exception of section five, which presents the views of governors, all the material has been drawn from interviews with senior managers, linemanagers, teachers and the associate staff themselves. Most of the chapter is taken up by the first four sections, on the benefits of the innovations in relation to four aspects:

- 1. The organisation and management of the colleges
- 2. The organisation and management of teaching and learning
- 3. The respondent's own role
- 4. The postholders.

Each aspect is dealt with in turn and the responses for the three categories of staff are presented by group of respondents. Although the questions were phrased in terms of benefits of the *post*, respondents' views frequently elided these with the perceived benefits of the *postholder*. The responses, however, are presented as given and the differences between posts and postholders are referred to in the final section of the chapter, in Chapter Eight and in the concluding chapter of the thesis.

The views of the different groups of respondents on the perceived benefits to the associate staff themselves are divided into three sub-sections: job-satisfaction; career aspirations and self-esteem. The interview questions elicited many detailed responses which, for the sake of manageability and length of the chapter, have had to be summarised. In each subsection, however, selected quotations are included in order flesh out the bones of the numbers shown in the Tables and to give a flavour of the fuller responses.

The remaining five sections are as follows.

5. Governors' views. Governors (including sponsors and trustees) were too far removed from the day-to-day operations of the posts to be able to comment on specific aspects of them in detail. They did, however, have views on the overall benefits of the staffing innovations.

6. Were the benefits of the posts different from respondents' expectations?

Innovations do not always go according to plan (Sarason, 1990) and so respondents' views were sought on whether the perceived benefits of the 32 posts were different to what they had expected at the outset.

7. Could other schools learn from these innovative posts?

Part of the raison d'etre of CTCs was that they would be "lights for others to follow" (Baker, 1986, quoted in Whitty, Edwards and Gewirtz, 1993, p 127) and the "beacons effect" (Taylor, 1989; Denholm, 1990; Miller, 1991) is a term still used in some colleges. Accordingly, respondents were asked if they considered that other schools could learn from the innovative posts.

8. Dissemination

Following on from section seven, respondents were asked whether they had made any attempts to disseminate perceived benefits, either within the CTC network or beyond.

9. Discussion.

1. The organisation and management of the colleges

The responses are presented in Table 6.

1.1. Management support

Eighteen of the 20 respondents in the senior management group considered that the organisation and management of the colleges benefitted from the ten management support posts. Creating posts which dealt with accounts, personnel and admissions - tasks formerly undertaken largely by the local authority - helped the "never easy process of change" (in a new CTC developed from a former school) and freed teaching staff and management "to keep a grip on what's going on and to consider the implications". Financial expertise had a crucial bearing on strategic management issues ("Managers have confidence that the college has got a knowledgable finance team that can be trusted to do things efficiently). The handling of public relations and relations with parents (valuable in hostile LEAs) freed teachers for their main pedagogic tasks ("Teachers do the teaching, that's what they are here for"). Systems managers freed senior managers for long term planning and for developing support for departments. Premises posts met governors' and SMTs' expectations of well-managed environments and provided them with more accurate information on maintenance costs.

Line-managers reported benefits from all ten posts. Four of the posts had site-related responsibilities (for contractors' accounts, lettings, in-house maintenance and the line-management of other premises staff) which allowed teachers to concentrate on teaching. CTCs need a high level of IT expertise, so the efforts and skills of two systems managers, formerly employed in industry, were praised for their business acumen with suppliers and for maintaining an effective network ("An inefficient and ineffective network is a waste of administrator's time and a waste of teachers' time").

Teachers reported on eight posts. Two liaison posts provided business with an education viewpoint and students with an understanding of the business world and dealt, in the first

Benefits of the 32 Posts

instance, with parents' concerns. Four premises and personnel staff provided cross-college information on split sites, freed senior staff from organising teaching cover and generally "facilitated the smooth running of the college". The organisation and management of the computerised college administration was heavily dependent on the IT network ("If the system goes down, it's chaos") so two systems managers were praised for their abilities to install and maintain computers and servers.

Table 6.1 Benefits of ten management support posts to the organisation and management of the colleges

Name of post ⁱ	SMT ²	LM³	Ts	AS	Total
Number	20	10	8	10	48
Public relations	1	1	1	1	4
Site/welfare*	1	1	-	1	3
Director of finance/admin*	1	1	-	1	3
Parent/college relations	2	1	1	1	5
Site/buyer	2	1	1	1	5
Systems manager	2	1	1	1	5
Personnel	2	1	1	1	5
Site/facilities manager	3	1	1	1	6
Systems manager	3	1	1	1	6
Site/facilities manager	1	1	1	1	4
Total	18	10	8	10	46

¹ Order of posts is unranked.

Missing = 2.

All ten associate staff, not surprisingly, reported how they aided the organisation and management of the colleges. Thus, four site-related posts provided value for money (through negotiating with contractors, carrying out efficient in-house repairs and raising income from lettings). Two finance and personnel staff brought professional skills to their colleges' financial and employment operations. Two liaison postholders reported, respectively, the

² SMT included principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts

advantages of being available to deal with queries from parents, community, and the media ("There is uncertainty about CTCs - its a scary concept for parents") and the existence of efficient parental reporting procedures, which kept truancy levels low. Two systems managers acknowledged their pivotal role in institutions heavily reliant on IT.

1.2. Curriculum support

The responses are presented in Table 6.2.

Table 6.2 Benefits of 13 curriculum support posts to the organisation and management of the colleges

Name of post ⁱ	SMT	LM	Ts	AS	Total
Number	20	13	11	13	57
Information resources manager	-	-	-	1	1
Teacher/technician	1	1	-	1	3
Learning liaison manager	2	1	-	1	4
Senior science technician	•	1	1	-	2
Senior co-ordinating technician	2	1	1	1	5
Technician/tutor	-	-	-	1	1
Curriculum support*	-	1	-	1	2
Broadcaster/tutor*	-	1		1	2
Information resources manager	1	1	1	1	4
Video/film technician	-	1	-	-	1
Media instructor	-	1	1	1	3
LTS trainee	•	-	1		1
Business links	1	1	-	1	3
Total	7	10	5	10	32

¹ Order of posts is unranked.

Only seven senior managers commented on five of the 13 posts, perhaps because few of the SMT would have had day-to-day involvement with them. Two posts had responsibility for liaison with industry (and, in one case, also with primarisand the community). The colleges

^{*}No teacher responses for these posts

benefitted from the postholders' contacts in the commercial and training sectors and from "a clear understanding of how business and industry operates". A teacher/technician had responsibility for the organisation of health and safety procedures across the college and was a member of the Total Quality Management (TQM) working group. The cross-college role of a senior co-ordinating technician allowed greater fluidity over the deployment of associate staff support.

Line managers reported on ten posts. Liaison and media-related posts helped foster the colleges' specific aims and provided a valuable public relations (PR) function. The media instructor had the technical and commercial expertise to advise on equipping and updating studios. The cross-site or cross-departmental work of two senior technicians meant that science resources were well-husbanded. A professionally qualified information resources manager ensured that written and electronic resources were managed efficiently. Three line-managers reported that being able to delegate to associate staff had a positive, knock-on effect on their own management role.

Teachers, less involved in organisation and management than were line-managers, commented on fewer posts in this group. However, there was appreciation of having a professional in charge of information resources and of the economic advice to managers on the commercial possibilities of video work offered by the media instructor. Three senior technicians were valued for providing information on new developments and for enabling more efficient deployment of staff.

Ten associate staff considered that their curriculum support posts assisted the organisation and management. Two stressed the flexibility they offered ("I'm able to pop in where needed and then go away and do something else"). Three postholders offered commercial experience and industrial contacts which helped the development of the colleges' media work and the careers and work experience programmes. Four claimed some credit for fostering "all staff's awareness of information management" and for meeting cross-college needs ("When we are all on our own race tracks I like to see myself at various points taking

off the blinkers"). One postholder reported that her role raised local awareness of the college.

1.3 Management and curriculum support

The responses are presented in Table 6.3.

Table 6.3 Benefits of nine management and curriculum support posts to the organisation and management of the colleges

Name of post ¹	SMT	LM	Ts	AS	Total
Number	20	9	8	9	46
IT manager	2	1	1	1	5
Graphic designer	1	1	1	1	4
IT manager*	2	1	•	1	4
Development manager	2	1	1	1	5
IT manager	2	1	1	1	5
Vocational assessments	2	1	1	1	5
Projects manager	-	1	1	1	3
Senior manager	1	1	1	1	4
Technician manager	1	1	1	1	4
Total	13	9	8	9	39

¹ Order of posts is unranked.

Senior managers commented on eight of the nine posts. Three were IT manager posts. Bringing in staff from industry with the knowledge and ability to oversee both the IT network and the IT curriculum freed middle managers "to monitor what goes on, to take time to talk to the team, to watch them teach and improve their abilities". The postholders identified gaps in college needs, provided information on national developments to support recommendations to SMT and provided IT training for staff. The skills of a graphic designer and, to a lesser extent, the projects manager, in designing publicity, recruiting and marketing material, promoted the public image of the college. The development manager's input to quality assessment, staff training and income-generating commercial developments were

^{*}No teacher responses for these posts

praised. The senior manager was credited with having "a vision" of how associate staff could contribute to the organisation, coupled with an awareness of the risk of exploiting them. The technician manager was acknowledged for the even-handed deployment of technicians and expertise on European legislation on health and safety.

All nine posts were reported as beneficial by line-managers. Three IT manager posts were held by skilled staff who were able, for example, "to ensure the software is responsive to requests...provide technical support for the administrative system... organise and contribute to staff IT training". Two postholders had produced attractive materials to promote the college (prospectuses) and to aid administration (easy-to-maintain Records of Achievement). A development manager provided staff training in assessment and accreditation (for NVQs), had successfully overseen the Investors In People (IIP) application and had obtained Training and Enterprise Council (TEC) contracts. The vocational assessments postholder furthered the college aims of meeting community needs by providing part-time courses which also generated income.

Eight posts were praised by teachers. The two postholders with development and training briefs enabled other staff to be NVQ verifiers which would affect future income-generating courses offered by the college and gave teachers "another string to their bow". Two teachers acknowledged how dependent on the IT manager posts were the organisation and management of the college. Two reported the benefits of professional looking brochures, programmes and income-generating CDs of drama productions - outputs from the two posts with a graphic design brief.

All nine associate staff in this group considered their posts benefitted the organisation and management. The three IT managers reported that they established and maintained efficient networks on which the administration of the colleges depended. For example, "I brought a structure to IT... the network is managed smoothly with backup procedures...I'm the cog round which everything turns". The development manager provided staff training and accreditation in NVQ assessment. Like the vocational assessments postholder, she organised

courses for post-16 students and the local community. The technician manager, able to teach IT, health and safety, and first aid, provided staffing flexibility. The senior manager reported that she provided a rounded view of the college's needs. Two staff claimed their graphic design skills enabled documents and publications, both internal and those for public consumption, to look professional.

2. The organisation and management of teaching and learning

2.1 Management support

The responses are presented in Table 6.4.

Table 6.4 Benefits of ten management support posts to the organisation of teaching and learning

Name of post ⁱ	SMT ²	LM³	Ts	AS	Total
Number	20	10	8	10	48
Public relations	1	-	-	-	1
Site/welfare*	-	-	-	-	-
Director of finance/admin*	-	-	-	-	-
Parent/college relations	1	1	1	1	4
Site/buyer	-	1	1	•	2
Systems manager	2	1	1	1	5
Personnel	-	-	-	1	1
Site/facilities manager	1	1	-	1	3
Systems manager	3	1	1	-	5
Site/facilities manager	1	-	1	1	3
Total	9	5	5	5	24

¹ Order of posts is unranked.

Nine senior managers identified six posts which benefitted the organisation of teaching and learning. Five of them commented on two systems manager posts which had brought in expertise which had influenced the courses the college was able to offer students. It was

² SMT included Principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

claimed that the availability of a reliable IT system improved the quality of students' work, their pride in it and their motivation. Parent liaison posts and a site/facilities manager freed teachers to concentrate on teaching.

Two of the five posts noted by line-managers were held by systems managers whose efforts meant, "there is little disruption to the teaching of IT because effective systems are maintained...if a student loses work or a disk doesn't work, they know where to go...she saves students hours". Two site-related posts were praised ("If the environment looks good, students feel appreciated"). There was appreciation of the impact on students' attendance (and by implication, on their learning) of a parent liaison postholder whose prompt actions were seen to be linked to a very low truancy level.

The two systems managers were among the five posts noted by teachers who appreciated having someone in-house to ensure that the system worked ("To use IT effectively in teaching and learning its got to be where teachers want it and when, and with what software they want on it. For most teachers IT is a tool - not an end in itself".) One site/facilities postholder "created a more suitable and appropriate environment for learning" and the site/buyer post saved teachers' time. Largely due to the efforts of a parent liaison postholder, there was "virtually no truancy".

Five of the nine associate staff in this group reported some benefits of their post to the organisation of teaching and learning, even those with ostensibly little contact with students or the curriculum. Thus, a systems manager reported that she had introduced industry standard packages which better prepared students for employment. Two site/facilities managers contributed to students' projects on ecology and energy.

2.2 Curriculum support

The responses are presented in Table 6.5.

Not surprisingly, this was the source of the greatest input by this group of posts. Senior managers praised eleven posts. One principal stressed the key role which associate staff could play in the organisation of the teaching environment: teachers' pedagogic expertise was combined with postholders' technical expertise in flexible teaching situations which could involve two or more classes working with a lead teacher, supported by a combination of teachers and associate staff. The technical know-how, industrial experience and contacts of associate staff benefitted the development and teaching of new courses in media and business studies and the provision of careers information and work experience. Regular cross-college projects were aided by an information resources manager's knowledge of the latest electronic and printed materials. A senior science technician was able to provide (trainee) teaching input and skilled technician services whilst receiving on-the-job training on the Licensed Teacher Scheme (LTS). Another furthered the college's aim of developing a team approach to departmental support.

Line-managers reported that all 13 posts benefitted teaching and students' learning. Benefits included teachers being freed from time-consuming tasks; postholders bringing with them commercial expertise; associate staff contributing to staff training; increased adult/student contact time and enhanced curriculum and work experience opportunities. These last benefits arose because some postholders taught, or instructed, students in a range of (mainly technical) courses. One line-manager said of a teacher/technician, "He will support kids directly...he affects the breadth of the work...he gives us more scope". Another reported that a postholder taught textiles courses in the mainstream curriculum; and photography and computer literacy in enrichment classes. One postholder reportedly gave students "motivation...the confidence with which young people can look for solutions to problems is astonishing...students are becoming more in control of their own learning".

These and other comments gave some indication of the extent to which the skills and

Benefits of the 32 Posts

flexibility embodied in these posts could be drawn on, sometimes at short notice, to broaden or underpin the work of departments and thus ease the day-to-day responsibilities of line-managers.

A note of caution was sounded by one respondent - presaging a problem which was to surface with increasing intensity as the study progressed. The line-manager qualified his initially positive answer thus: "Part of me says 'this is good - she's very useful'. Another part of me says 'it would be a damn sight more useful if I had a full-time technician and another teacher'. I am getting bits of both. There are benefits but there are costs".

Table 6.5 Benefits of 13 curriculum support posts to the organisation of teaching and learning

Name of post ¹	SMT	LM	Ts	AS	Total
Number	20	13	11	13	57
Information resources manager	1	1	1	1	4
Teacher/technician	1	1	1	1	4
Learning liaison manager	2	1	1	1	5
Senior science technician	-	1	1	1	3
Senior co-ordinating technician	2	1	1	1	5
Technician/tutor	2	1	1	1	5
Curriculum support*	1	1	-	1	3
Broadcaster/tutor*	1	1	-	1	3
Information resources manager	1	1	1	1	4
Video/film technician	-	1	1	1	3
Media instructor	2	1	1	1	5
LTS trainee	1	1	1	1	4
Business links	1	1	1	1	4
Total	15	13	11	13	52

¹ Order of posts is unranked.

^{*}No teacher responses for these posts

Teachers drew attention to 11 posts, eight of which involved the postholders in some direct teaching (four of whom had also contributed to course development). One postholder was praised because "He produces a complete course, which you can follow or adapt, based on his contacts and examples from outside...you can't teach technology without knowing how it is used out of the school situation". Other examples included teacher/tutors or technician/tutors who were used as extra members of the teaching staff and valued for increasing the range of work the department could offer. The remaining three posts did not teach directly but, by supporting teachers, groups or individual students, enabled their departments to develop more flexible learning patterns.

All 13 associate staff in this group identified benefits attributable to their posts. Nine respondents noted that they had some input to teaching. Five were involved in mainstream teaching, sometimes of examined courses (BTEC media and communication options, business studies and GNVQs in IT). Four were involved in forging links with local industry, TECs and primary schools; and in organising students' work experience. Two respondents with a liaison brief and two involved in media work claimed that students (and some staff) had a broader curriculum experience, and that their communication and team-work skills had improved, as a result of postholders' input. Two qualified librarians had devised and led timetabled study skills and information-handling courses for students.

Four respondents worked alongside teachers and provided students with access to an informed adult who, moreover, had greater expertise in some areas (ceramics, CAD and CAM, video editing, photography, graphics and technical drawing) than their teacher colleagues. Two of these postholders considered that, as women actively supporting teaching and leaning in technical surroundings, they provided positive role models for students. Two senior technicians reported that their organisation of laboratories and their management of other technicians meant "staff all pull together".

2.3. Management and curriculum support

The responses are presented in Table 6.6.

Eight of the nine posts were noted by *senior managers*. All the posts involved some teaching (on full-time courses for the CTC students or on part-time courses for adult returners in the community) or training (of CTC staff or of young people on YT courses). Three of the postholders held IT posts. These postholders kept senior management in touch with IT developments and the implications for upgrading resources and amending courses, and provided staff INSET in IT.

Table 6.6 Benefits of nine management and curriculum support posts to the organisation of teaching and learning

Name of post ¹	SMT	LM	Ts	AS	Total
Number	20	9	8	9	46
IT manager	2	1	1	1	5
Graphic designer	1	1	1	1	4
IT manager*	2	1	-	1	4
Development manager	1	1	1	1	4
IT manager	1	1	1	1	4
Vocational assessments	1	1	1	1	4
Projects manager	-	1	1	1	3
Senior manager	1	1	1	1	4
Technician manager	1	1	1	1	4
Total	10	9	8	9	36

¹ Order of posts is unranked.

All nine posts were noted by *line-managers*. The benefits acknowledged included enhanced curriculum opportunities; improved recording and assessment; staff training and knowledge of the workplace. Thus, one IT manager was valued because "His views are respected and he is very influential... we could not ask for more in terms of setting the context for teachers to work with students in IT. If the network or software does not work, teachers lose confidence. Here the system is rarely down". Two postholders with graphic design roles

^{*}No teacher responses for these posts

instructed staff in desk top publishing and graphic design and assisted students with design projects. Another postholder had "innovative ideas about key stage learning and core skills". The technician manager taught first-aid, health and safety and IT. The development manager trained staff to be assessment of prior learning (APL) advisers and, like the vocational assessments postholder, helped teachers to become certified NVQ assessors.

Teachers commented on eight posts. Postholders' specialist knowledge had influenced course developments and had contributed to recording and assessment. For example, two postholders had trained staff in new methods of competency-based assessment and had helped students compile their portfolio of evidence for their Records of Achievement. A graphic designer had helped students produce more professional looking portfolios and also coached a sports team. The teaching input of the senior manager was said to "provide a good role model for other staff of what we're aiming for". It was claimed that two IT managers had increased the range of teaching and learning styles. One of them organised IT induction training sessions during evenings and weekends for Year 7 students before they entered the college, thus enabling most students to acquire basic word processing skills soon after entering the CTC. 'Add-ons' to the technician manager's main responsibilities included teaching first aid, citizenship and health and safety. His qualifications in several outdoor pursuits meant the college did not have to pay other specialist instructors.

All nine associate staff in this group reported benefits from their posts. The benefits were similar to those noted already: a wide range of BTEC and some pilot GNVQ and NVQ courses available for full-time and part-time students; opportunities for students to develop their design skills; opportunities for staff to learn new, competency-based assessment techniques; a broader programme of enrichment activities; and accessible IT systems with experts able to teach students and train staff. For example, one IT manager commented that "After one term we expect to have new staff... using IT in the classroom reasonably confidently and using it for admin. very confidently". Another claimed "Teaching styles have changed...we teach students how to use equipment that's now an important part of life".

3. The respondent's own role

3.1 Management support

Senior managers, line-managers and teachers were asked if their own role had benefitted from the associate staff posts. The responses are presented in Table 6.7.

Table 6.7 Benefits of ten management support posts to the respondent's own role**

Name of post ⁱ	SMT ²	LM ³	Ts	Total
Number	20	10	8	38
Public relations	1	-	-	1
Site/welfare*	-	1	n/a	1
Director of finance and admin*	1	-	n/a	1
Parent/college relations	1	1	1	3
Site/buyer	1	1	1	3
Systems manager	1	1	1	3
Personnel secretary	2	1	-	3
Site/facilities manager	2	1	-	3
Systems manager	-	1	1	2
Site/facilities manager	-	1	1	2
Total	9	8	5	22

¹ Order of posts is unranked.

It was not surprising that senior managers were proportionately more likely than the other groups of respondents to report benefits to themselves from the ten posts intended to support the management and administration of the institutions. Benefits (noted in relation to seven posts) were having access to expertise and being able to delegate "with confidence, to someone reliable and competent". This saved precious time and freed senior managers for leadership and policy-related tasks and for "long term planning, developing support for all

² SMT included Principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

^{**} Associate staff were not asked this question. Their views appear in the next section.

departments and realising the long term mission of the college". Site/facilities managers became "middle men" between senior managers and external contractors. Finance and personnel posts ensured SMT had up-to-date budget information and, along with a systems manager post, relieved senior managers of time-consuming data collection and analysis. Parent liaison staff were able to defuse potential confrontations and to monitor students' timekeeping and truancy rates - usually the province of a deputy head.

For *line-managers*, the most notable benefits of eight posts were being able to delegate a number of time-consuming tasks and having confidence in associate staff expertise. Thus, respondents valued being able to delegate: the mechanics of ordering and purchasing; the monitoring of attendance or screening of parental approaches; and the line-management of other associate staff. Line-managers praised the skills involved in network installation and maintenance, computerised recording and reporting systems and knowledge of electrical and heating plant. Freed from such tasks, respondents reported that they had more time to observe and support staff and students and for other management tasks.

One line-manager qualified his remarks. He reported that, although he could delegate some tasks to the postholder, the dual role was not working satisfactorily - as had become more apparent as student numbers had grown. This issue was to recur in the second phase of the study.

Teachers commented on five posts. They did not report direct delegation of responsibilities but they welcomed the technical expertise or social skills of postholders. Thus, systems (without whom "IT development in the curriculum would stop") and a premises manager (with the skills, the staff and the freedom from LEA controls to remodel teaching spaces quickly) were valued. A liaison postholder was able to relay information between teachers and parents.

3.2 Curriculum support

The responses are presented in Table 6.8.

Senior managers reported personal benefits from only two of the 13 posts primarily supporting the curriculum - posts which, with their external liaison component, took from SMT some of the networking with feeder schools and the community, freeing managers for other development work with industry and higher education institutions. As one principal stated "That is what CTCs should be doing - making links - and we know they don't happen unless someone makes them happen...across the curriculum, across the college and with outside agencies".

Table 6.8 Benefits of 13 curriculum support posts to the respondent's own role

Name of post ¹	SMT	LM	Ts	Total
Number	20	13	11	44
Information resources manager	-	1	1	2
Teacher/technician	-	1	1	2
Learning liaison manager	2	1	-	3
Senior science technician	-	1	1	2
Senior co-ordinating technician	-	-	1	1
Technician/tutor	-	1	1	2
Curriculum support*	-	1	-	1
Broadcaster/tutor*	-	1	-	1
Information resources manager	-	1	1	2
Video/film technician	-	1	1	2
Media instructor	-	1	1	2
LTS trainee	-	1	1	2
Business links	1	1	1	3
Total	3	12	10	25

¹ Order of posts is unranked.

^{*}No teacher responses for these posts

It was not surprising that line-managers and teachers, in closer contact with this group of postholders, perceived more benefits from these posts. Thus, line-managers identified 12 posts. Almost half the benefits were due to postholders teaching or instructing students in a range of courses, noted already. Postholders' specific expertise enhanced students' curriculum opportunities and provided their line-managers with "flexibility in teaching situations as they arise...to take a whole group or class and teach particular topics". The remaining benefits were related to the delegated tasks associate staff took from their line-For example, two liaison posts freed their line-managers' time for staff development responsibilities; senior technicians trained and managed junior colleagues and undertook routine budget and maintenance tasks. Teachers reported benefits from eleven posts which impacted on their daily lives in classrooms, laboratories or workshops. For example, respondents stated that they could, with confidence, divert students' routine queries and requests for equipment in media, design or engineering technology, to competent staff. Postholders, whose technical expertise sometimes equalled or surpassed that of teachers, brought useful information or material to the attention of busy colleagues. Technicians took time-consuming tasks, such as stock control and health and safety oversight, from teachers.

Teachers were less likely than line-managers to comment on the benefits of associate staff teaching. Only one noted, of a teacher/technician in the design technology department, "I can use him as a third member of staff in the workshop...I call on his help with teaching". This was an early indication of teachers' resistance to some aspects of the innovative posts - an issue which receives attention in subsequent chapters.

3.3 Management and curriculum support

The responses are presented in Table 6.9.

Table 6.9 Benefits of nine management and curriculum support posts to the respondent's own role

Name of post ¹	SMT	LM	Ts	Total
Number	20	9	8	37
IT manager	1	1	1	3
Graphic designer	•	1	1	2
IT manager*	1	1	•	2
Development manager	-	1	1	2
IT manager	1	1	1	3
Vocational assessments	-	1	1	2
Projects manager	-	1	1	2
Senior manager	1	1	1	3
Technician manager	-	1	1	2
Total	4	9	8	21

¹ Order of posts is unranked.

Of the nine posts supporting both the management and the curriculum only four were noted by senior managers. Three had a dual brief for the IT network and the IT curriculum. Of one, a senior manager commented "Before, I knew where the college should be, but could not get the previous postholder to get us there". The fourth post was a senior manager who was appreciated for taking on a public relations role

Line-managers commented on all nine posts. Three welcomed postholders who had the expertise to shoulder the burden of both the IT network and the IT curriculum, allowing respondents "more time for observation and reflection...I have confidence in him, I can leave him to get on". The development manager and the vocational assessments postholder were valued for, respectively, their input to quality assurance, and to staff training and income generation. Although design and reprographic tasks could be delegated to two postholders, one of the line-managers stated that a key aspect (income generation) of one post had not,

^{*}No teacher responses for these posts

Benefits of the 32 Posts

to date, worked out satisfactorily.

Teachers noted eight posts. Two commented on the contribution of staff with graphic design

skills ("I'm a good teacher. She's a good graphic designer. It's silly for me to waste my time

making lousy graphic designs when she can do it quicker and better). Three teachers

reported that they benefitted from postholders' detailed knowledge of health and safety

regulations and of post-16 developments and the "bonus" of being offered training in NVQ

assessment. Two IT managers were praised for their appreciation of IT across the

curriculum and their willingness to train and support teachers less experienced in IT.

4. The postholders

Line-managers, teachers and the 32 postholders were asked about the benefits of the posts

to the associate staff, in terms of job satisfaction, career aspirations and self-esteem.

(Members of the senior management were not asked - it was judged unlikely that they would

be close enough to the postholders to be able to give an opinion.)

Since there were three sections to this question the responses for each category of post are

presented separately for line-managers, teachers and associate staff. Many respondents

seemed to find these three 'personal' questions harder to answer and were not always able

to form a judgement.

4.1 Management support

Line-managers' perceptions

The responses are presented in Table 6.10.

140

Table 6.10 Benefits to postholders of ten management support posts: as perceived by linemanagers

Post	Job satis	Career	Self est
Public relations	Y	Y	d/k
Site/welfare	d/k	N	d/k
Director of finance/administration	Y	Y	d/k
Parent/college relations	Y	N	Y
Site/buyer	Y	N	Y
Systems manager	Y	d/k	Y
Personnel	d/k	d/k	Y
Site/facilities manager	Y	Y	Y
Systems manager	N	Y	Y
Site/facilities manager	Y	N	Y
Total 'yes'	7	4	7
Total 'no'	1	4	0
Total 'd/k'	2	2	3

N=28

Line-managers' perceptions of postholders' job satisfaction

Line-managers noted seven posts which they thought gave their holders job satisfaction. In particular, they noted the management skills staff had acquired. For example, a site/facilities manager "had grown with the job…learning how to cope with demanding users and disappointing suppliers… and learning modern techniques of management".

Line-managers' perceptions of postholders' career aspirations

In four cases career aspirations were deemed to have increased because of the postholders' greater confidence and increased opportunities to develop skills and management experience and, in one case, the chance to combine the job with part-time teacher training. Four line-managers thought the aspirations of their respective staff, all within a few years of retirement, had not been increased by their CTC post. Two respondents

admitted they knew nothing of their staff's aspirations.

Line-managers' perceptions of postholders' self-esteem

Seven of the ten postholders were judged to enjoy raised levels of self-esteem. For example, a systems manager "has grown in expertise and confidence...she has established herself as a good manager and has gained respect". Two line-managers said they did not know, although one qualified this by saying that he thought a liaison postholder had difficulty establishing her position and in dealing with colleagues' perceptions of her status.

Teachers' perceptions

The responses are presented in Table 6.11.

Table 6.11 Benefits to postholders of ten management support posts: as perceived by teachers

Post	Job satis	Career	Self est
Public relations	d/k	Y	Y
Site/welfare*	-	-	-
Director of finance/administration*	-	-	-
Parent/college relations	Y	N	у
Site/buyer	d/k	N	Y
Systems manager	Y	d/k	Y
Personnel	Y	Y	d/k
Site/facilities manager	Y	d/k	Y
Systems manager	Y	Y	N
Site/facilities manager	Y	Y	Y
Total 'yes'	6	4	6
Total 'no'	0	2	1
Total 'd/k'	2	2	1

^{*} No teacher response for these posts

N=27

Teachers' perceptions of postholders' job satisfaction

Teachers identified six postholders whom they considered to enjoy job satisfaction. They were unequivocal about four of them but qualified their remarks about the systems and

Benefits of the 32 Posts

network managers, because of the pressures they encountered. Two teachers did not comment.

Teachers' perceptions of postholders' career aspirations

Four postholders were perceived to have enhanced career aspirations. One parent liaison postholder had already embarked on a part-time PGCE. The two 'No' responses referred to staff not far from retirement. Two teachers did not know of colleagues' aspirations.

Teachers' perceptions of postholders' self-esteem

Six associate staff were thought to have high self-esteem although only two respondents amplified their response. Thus, it was reported of one postholder "She enjoys what she does...she like to be thought important....she likes to know what is going on and she's interested in the students"

Postholders' views

The responses are presented in Table 6.12.

Postholders' job satisfaction

All but one of the ten associate staff reported job satisfaction - although few added to their one-word response. One postholder reported that the job could be "brilliant - really satisfying". One postholder qualified his answer, saying "Yes, if you take the politics out - there's a lot of politics in CTCs". The sole dissenting voice came from a postholder who reported that "there are two roles here and they don't gel together". The difficulties of this dual role are raised in subsequent chapters.

Postholders' career aspirations

Seven of the ten respondents considered that the CTC experience would assist their career prospects. For example, a site/facilities manager stated that the post had "catapulted me into a new field of managing facilities and budgets - a growing area in both the public and private sector". Two respondents qualified their replies by raising the question (also raised by their colleagues in the other two categories) of progression. They pointed out that their jobs were in such a "unique niche" it was hard to imagine where to go next.

Three of the ten were too close to retirement or too happily settled to consider moving.

Table 6.12 Benefits of ten management support posts: as perceived by postholders

Post	Job satis	Career	Self est
Public relations	Y	Y	Y
Site/welfare	N	Y	d/n
Director of finance/administration	Y	Y	Y
Parent/college relations	Y	N	Y
Site/buyer	Y	N	Y
Systems manager	Y	Y	Y
Personnel	Y	Y	Y
Site/facilities manager	Y	Y	Y
Systems manager	Y	Y	Y
Site/facilities manager	Y	N	Y
Total 'yes'	9	7	9
Total 'no'	1	3	0
Total 'd/k'	0	0	11

N = 10

Postholders' self-esteem

Nine postholders stated that they enjoyed high self-esteem, in six cases higher than in previous jobs ("I've seen growth in my own character because of the nature of the job"). Two reported that although self-esteem was high - it was no higher than previously - and for another, it varied from day to day ("On a bad day I feel the school could do without me"). One person did not comment.

4.2 Curriculum support

Line-managers' perceptions

The responses are presented in Table 6.13.

Table 6.13 Benefits to postholders of 13 curriculum support posts: as perceived by line-managers

Post	Job sat	is Career	Self est
Information resources manager	d/k	Y	d/k
Teacher/technician	Y	N	Y
Learning liaison manager	Y	Y	N
Senior science technician	Y	N	Y
Senior co-ordinating technician	Y	N	Y
Technician/tutor	N	Y	N
Curriculum support	Y	N	N
Broadcaster/tutor	Y	d/k	Y
Information resources manager	Y	d/k	d/K
Video/film technician	Y	d/k	d/k
Media instructor	Y	d/k	Y
LTS trainee	Y	Y	Y
Business links	N	N	N
Total 'yes'	10	4	6
Total 'no'	2	5	4
Total 'd/k'	1	4	3

N = 13

Line managers' perceptions of postholders' job satisfaction

Line-managers considered that ten out of 13 postholders enjoyed job satisfaction, which several respondents related to being associated with new institutions, which offered fresh opportunities. A typical comment was, "She was pleased with the challenge, pleased to be in at the start of the CTC". One line-manager qualified his remarks, ("He finds some people in the school irritating...to someone with an industry background to be told by a teacher, 'this is what you need - this is how you do it'"). Two associate staff were judged to be dissatisfied, one with the lack of clarity of the post ("The role needs sorting out") and

the other by the frustration at having to retain the technician part of her dual role. One line-manager was unable to comment.

Line-managers' perceptions of postholders' career aspirations

In only four cases were the posts considered to have raised career aspirations. Two postholders were training to be teachers: one was on the LT Scheme ("Before, she had a job, now she's a professional"); the other aimed to qualify as a teacher - an aspiration which was, as will be seen in later chapters, creating a dilemma for the college management. A fourth post, although it had high status in the college, lacked certain management components which would be looked for by appointments committees.

Four postholders were thought to lack ambition. One line-manager had tried to persuade a postholder to qualify as a teacher, "but she likes the freedom that the teachers and the line-managers do not get". Another line-manager thought the postholder had "developed skills she is not aware of, she possibly doesn't see their advantages". Four line-managers admitted, some with chagrin, that they knew nothing about their staff's career aspirations.

Line-managers' perceptions of postholders' self esteem

The self-esteem of six postholders was judged to have been raised. For example: one senior science technician was "more confident and assured than before...he's involved in college life more and his opinions are respected" and the teacher/technician "enjoys being valued in the job". Lower self-esteem was perceived in three cases. One "had higher status in industry - here self-esteem is possibly lower" and another had been subject to 'sniping' from teaching staff who saw the postholder as encroaching on their territory. One respondent qualified his answer: although the postholder's self-esteem was judged to rise when events she organised were successful, it was thought she was aware of criticisms that she was "highly paid for what she does" and "was not the right person in that high profile post".

Teachers' perceptions

The responses are presented in Table 6.14.

Table 6.14 Benefits to postholders of 13 curriculum support posts: as perceived by teachers

Post	Job satis	Career	Self est
Information resources manager	Y	d/k	d/k
Teacher/technician	Y	d/k	Y
Learning liaison manager	Y	Y	Y
Senior science technician	Y	Y	Y
Senior co-ordinating technician	Y	N	Y
Technician/tutor	Y	Y	Y
Curriculum support*	-	-	•
Broadcaster/tutor*	-	-	-
Information resources manager	Y	d/k	Y
Video/film technician	N	Y	d/k
Media instructor	Y	Y	Y
LTS trainee	Y	Y	Y
Business links	Y	Y	N
Total 'yes'	10	7	8
Total 'no'	1	1	1
Total 'd/k'	0	3	2

^{*}No teacher response for these posts

N = 11

Teachers' perceptions of postholders' job satisfaction

Teachers reported that, in their view, ten of the 13 postholders enjoyed job satisfaction due, in part, to the management responsibilities of their broadened role. For example, an information resources manager "gets satisfaction from being a line manager - who wouldn't? We all like a bit of power". Four respondents, however, qualified their comments. Two spoke of the pressures on dual posts ("Job satisfaction? - yes, from the teaching role - not from the technician role") and from a fragmented brief ("He is happy when he's allowed to do the job from start to finish...but he gets very frustrated... he needs to liaise with so many people").

Benefits of the 32 Posts

Teachers' perceptions of postholders' career aspirations

Only seven teachers reported on postholders' career aspirations. For example, the LTS trainee was clearly set on her career path, whilst the technician/tutor "sees a strong hierarchy that she aspires to rise in, from technician - to tutor/technician - to teacher - to manager...there is a ladder to climb". Two teachers, however, had reservations about where the associate staff could go next. Thus, one had "got to the top of the career ladder in school...there are limited career paths"; another was close to retirement. Three teachers could not answer.

Teachers' perceptions of postholders' self-esteem

Eight postholders were judged to have raised self-esteem from their involvement with students and departments ("through her involvement with students she feels she is making a contribution to the department...its like being a teacher but less hassle"). Two teachers could not comment.

Postholders' views

The responses are presented in Table 6.15.

Postholders' job satisfaction

Twelve of the 13 associate staff in this group produced such positive views of their job satisfaction that a selection of their comments are quoted: "The job is so varied, I'm never bored...there are personal triumphs when you see kids doing something well because of your input' (teacher/technician); "Before, I had a 'job' - I went to work - I came home (thank God) and didn't look forward to the next day. Here, I want to come to work. I feel I am doing something useful - passing on my years of experience" (technician/tutor); "I've been able to mould the job by seeing opportunities and offering my skills...I teach all my hobbies" (curriculum support); "I'm doing what I've always wanted to do...it's not just the teaching, it's the feedback from students, that's what really satisfies" (LTS trainee).

Table 6.15 Benefits of 13 curriculum support posts: as perceived by postholders

Post	Job satis	Career	Self est
Information resources manager	Y	Y	Y
Teacher/technician	Y	N	Y
Learning liaison manager	Y	Y	d/k
Senior science technician	Y	Y	Y
Senior co-ordinating technician	Y	N	Y
Technician/tutor	Y	Y	Y
Curriculum support	Y	Y	Y
Broadcaster/tutor	Y	Y	N
Information resources manager	Y	Y	Y
Video/film technician	Y	Y	Y
Media instructor	Y	Y	Y
LTS trainee	Y	Y	Y
Business links	N	Y	N
Total 'yes'	12	11	10
Total 'no'	1	2	2
Total 'd/k'	0	0	1

N = 13

Three of these postholders qualified their remarks by saying some aspects of their work gave more satisfaction than others ("Washing up lab equipment is boring but I enjoy the research and development side"). The sole negative comment came from a liaison postholder ("I'm just coming out of a fog - I see the light at the end of the tunnel").

Postholders' career aspirations

The 11 positive responses were divided almost evenly: six reported aspirations had been raised; five agreed, but were in a quandary over where to go next. In the first group were two who aimed to qualify as teachers. One LTS trainee saw her career as "progressing up the science ladder - there's no turning back". The video/film technician considered "My career has been enhanced by my working here". One postholder had her sights set on a

Benefits of the 32 Posts

senior manager post.

In the second group, three of the five respondents spoke of the specific ways in which they had shaped their posts which made the next career moves problematic and two regretted the ceiling they encountered without a teaching qualification. As one respondent put it, "I can't have career aspirations unless I train to be a teacher - the ceiling is always there. However many times I teach main curriculum courses I still won't get the same salary because I am not qualified". Two postholders reported they had no aspirations. One considered himself too old: the younger one declared "I doubt I could find another job which gives so much satisfaction".

Postholders' self-esteem

Ten postholders reported raised self-esteem, attributable to their experience in a CTC ("I'm a hundred per cent more confident ...the longer I'm here the more knowledge I have, therefore I'm more confident and happy"). Respondents noted the challenge of new opportunities ("My self-esteem has risen in this post...you don't always realise what you're capable of doing till you rise to the challenge"). Two postholders thought their self-esteem had lowered in the post; one because his scope was more limited, the other because of the difficulties and tensions experienced.

4.3 Management and curriculum support

Line-managers' perceptions

The responses are presented in Table 6.16.

Line-managers' perceptions of postholders' job satisfaction

Eight out of nine postholders were considered by line-managers to enjoy job satisfaction. Two posts drew particularly positive comments. Of one it was said "He's become more outgoing and knowledgeable, more confident and outspoken...he has had management training on the job and is now more fulfilled". One line-manager reported "He's involved in a wide number of area ...he's a fulcrum point for a number of people, from SMT down". Another line manager qualified his remarks with "He enjoys the support of staff and students

but he doesn't enjoy the toll it takes on his health, or the time it takes".

Table 6.16 Benefits to postholders of nine management and curriculum support posts: as perceived by line-managers

Post	Job sati	s Career	Self est
IT manager	Y	N	Y
Graphic designer	Y	Y	Y
IT manager	Y	N	Y
Development manager	Y	Y	Y
IT manager	Y	N	Y
Vocational assessments	Y	Y	Y
Projects manager	N	N	N
Senior manager	Y	d/k	Y
Technician manager	Y	Y	d/k
Total 'yes'	8	4	7
Total 'no'	1	4	1
Total 'd/k'	0	1	1

N=9

Line-managers' perceptions of postholders' career aspirations

Four line-managers considered that the career aspirations of postholders had been enhanced by the wider experience gained by working in a CTC. For example, the development manager "has more potential working here than in her previous post" and a graphic designer "could progress outside the college ...she has had tremendous experience working here". Four other line-managers took a different view. Three managed IT managers, two of whom were considered unlikely to want to advance their careers ("I think he thinks he has got the perfect job"). The third postholder, however, was reported as being dissatisfied at his lack of progress in the college.

Line-managers' perceptions of postholders' self esteem

Seven of the nine postholders were judged to enjoy raised self-esteem although only two line-

managers amplified their 'Yes' response to say how the postholders were both highly respected ("especially on the technical side, no-one can match him"). One postholder was considered to have lower self-esteem than in her previous employment. Another postholder reportedly enjoyed the teaching but felt inadequately recompensed for it.

Teachers' perceptions

The responses are presented in Table 6.17.

Teachers' perceptions of postholders' job satisfaction

Table 6.17 Benefits to postholders of nine management and curriculum support posts: as perceived by teachers

Post	Job satis	Career	Self est
IT manager	Y	d/k	d/k
Graphic designer	Y	d/k	d/k
IT manager*	-	-	-
Development manager	Y	d/k	Y
IT manager	Y	d/k	Y
Vocational assessments	Y	Y	Y
Projects manager	d/k	N	Y
Senior manager	N	d/k	ď/k
Technician manager	Y	Y	Y
Total 'yes'	6	2	5
Total 'no'	1	1	0
Total 'd/k'	1	5	3

^{*} No teacher response for this post

N = 8

Seven teachers vouchsafed an opinion. Six of them thought that the postholders were satisfied with their jobs and noted their enthusiasm and positive attitudes towards new initiatives. The following comments about one postholder encapsulated the sentiments

expressed also by others: "She seems very happy to work here...she's very innovative, energetic and enthusiastic and there is a knock-on effect on the courses she runs...the Principal has allowed her to try out new ideas and lots of them have been accepted". The one negative response indicated the difficulties, raised in other parts of the study, faced by associate staff who, although highly regarded, lacked the career experience which would have given them 'street cred' with teachers: "She's more worried now..the stresses have changed...she has been thrown in at the deep end. You'd expect someone at that level to have experience of dealing with many issues on which teachers now consult and which she now faces".

Teachers' perceptions of postholders' career aspirations

Only three teachers were able to comment. They stressed the benefits of the CTC experience, especially the opportunity to instruct or teach ("He has gained from teaching...he'll take that with him"). Five teachers did not know of colleagues' intentions. (Postholders possibly would not discuss career issues with a teacher who was not their line-manager.)

Teachers' perceptions of postholders' self-esteem

Five teachers expressed opinions on postholders' self-esteem. Three were clear that their associate staff colleagues felt valued. Two said 'Yes' but added reservations over two recurring issues in the study - teachers' lack of understanding of the new role ("She has lots of time to develop her own projects - that raises her self-esteem - but a lot don't understand what she does") and the potential exploitation of associate staff ("He would like more recognition for what he does"). Three could not comment.

Postholders' views

The responses are presented in Table 6.18.

Postholders' job satisfaction

Seven of the nine associate staff reported job satisfaction, claiming, for example, "I love it. It takes over your life. I feel strongly for the school. I want it to succeed". Two expressed reservations. The first reported "only limited job satisfaction - a lot of the work is boring

Benefits of the 32 Posts

bread and butter stuff" and the other experienced frustration over, and some teacher resistance to, the role.

Table 6.18 Benefits of nine management and curriculum support posts: as perceived by postholders

Post	Job satis	Career	Self est
IT manager	Y	Y	Y
Graphic designer	N	Y	Y
IT manager	Y	Y	Y
Development manager	Y	N	Y
IT manager	Y	N	Y
Vocational assessments	Y	Y	Y
Projects manager	N	N	N
Senior manager	Y	N	N
Technician manager	Y	Y	Y
Total 'yes'	7	5	7
Total 'no'	2	4	2
Total 'd/k'	0	0	0

N = 9

Postholders' career aspirations

Five out of nine postholders thought their experience of working in a CTC had raised their career aspirations. For example, one said he was grateful for the opportunity to teach offered by the CTC although he did not want to become a full-time teacher. Three of these five respondents, however, were uncertain where their raised aspirations could take them. Thus, an IT manager stated "I feel stuck between two stools...I don't feel qualified to be a teacher... it's not enough to say you can get by... I'm not arrogant enough to say I can do it". Another postholder questioned "Where next? I'm a Jack of all trades and master of none". Three staff reported that they had no career aspirations. One respondent thought her move to a CTC had been retrograde in career terms, albeit rewarding in other respects.

Postholders' self-esteem

Self-esteem was reportedly high in seven respondents. For example, two postholders reported favourably on the support and encouragement they received from senior management. As one put it, "My confidence has risen. The CTC is a good organisation to be in. In industry you get no support from senior management. Here there is great support and professionalism of the staff". Of the two who demurred, one said "I reserve judgement" and the other claimed self-esteem was not important to him.

5. Governors' views

Governors (including sponsors and trustees) were considered too far removed from the day-to-day operations of the colleges to be able to comment in detail on specific aspects of the posts. They did, however, have views on the overall benefits of these staffing innovations. These are presented in Table 6.19.

Table 6.19 Benefits of the staffing innovations as perceived by governors

	Response	No.
1	Better learning opportunities for students	8
2	Links formed with industry	7
3	Better student achievement	6
4	Positive attitude and morale of staff	5
5	Positive attitude of students	4
6	Positive ethos and culture of college	4
7	More time for teachers' professional role	3
8	Additional skills/expertise in college	1
9	Better planning and decision-making	1
10	More cost-effective use of resources	1
Total		40

N = 18

More than one response possible

Seven governors drew attention to the value of posts which fostered *links with industry*, central to the mission of CTCs and a consequence of their sponsorship arrangements and the industrial representation amongst governors. Examples were cited of liaison posts with briefs to encourage managers from industry to talk to staff and students ("meeting in the middle on the importance of the world of work") and to engage sponsors in joint activities ("as a means of bringing together education, manufacturing and engineering industry which had become less popular and attracted poor talent").

A third of governors also commented on what they saw as the better student achievement, ("Every student has some skills to build on, I'm impressed at the achievement of lower ability pupils"). They also drew attention to the more positive attitudes and behaviour of students. One respondent remarked "What I see, that I don't see in other schools, is groups of pupils who seem interested and involved and their education does not seem a chore to them". The governors reported that some skills and attitudes, valuable in any field of work, were acquired during students' work experience with sponsors or in local industry ("Students will go on to their chosen careers with a greater practical knowledge and vision"). Governors also praised the work experience arranged by postholders for teachers ("Teachers get little exposure to the outside world if they go from school to college to school ... yet the children they teach will work in local firms, interested in the quality of the school output"). The positive attitude and morale of staff were also noted and, related to them, the positive culture and ethos of the colleges ("There is greater breadth of vision and appreciation of whole-school ethos and philosophy ... staff all play a part in the development of the CTC... there is a sense of ownership"). Three governors commented that the posts allowed more time for teachers' professional role ("They enhance the quality of teaching because teachers can delegate... and concentrate on the productive end of the business"). Three governors noted the benefits of bringing in associate staff whose additional skills and expertise led to improved planning information and, moreover, were cost-effective.

6. Were the benefits of the posts different from respondents' expectations?

Respondents were asked whether the perceived benefits of the 32 posts were different to what

they had expected at the outset of the innovations. The responses are set out in Table 6.20

The largest group of responses (41.8%) show that the benefits of the 32 posts had been different from the original expectations. This was usually because expectations were exceeded and the benefits were greater than anticipated. Respondents noted the effect of the speed of innovation and change on developing posts; that the existence of the new post generated additional demands; and the postholders' level of expertise and commitment. For example, one line-manager stated, "She provided skills, knowledge and unexpected talents...and all with a thoroughness and professionalism that surprised and delighted me". Five of the 16 associate staff respondents reported the unexpected benefits of working directly with students. As one put it, "It turned out to be an exciting post... I was glad to be allowed to develop the area I knew about and present it to students". Another four noted the unexpected challenges of their posts. No principals and only three other senior managers reported unexpected benefits - perhaps wishing to imply that forward planning had been accurate.

Table 6.20 Were the benefits of the posts different from respondents' expectations?

Response	SMT	Line-man	Teachers	Ass. staff	Total	%
N	20	28	27	32	107	-
Yes	3	14	10	16	43	41.8
No, as expected	9	9	11	7	36	34.9
Not know what to expect	1	1	4	7	13	12.6
Expectations not met	3	2	-	1	6	5.8
Other	2	2	-	1	5	4.9
Total	18	28	25	32	103	100

Missing = 4

A third of respondents reported that the benefits had been more or less as expected, mainly because "we spent a long time thinking" or because they had been made aware of

management's expectations of the posts. Only two of 11 teachers amplified their responses: both spoke of the posts being shaped around the personalities of the expected incumbents. Associate staff considered they had been well-briefed on the expectations of the post.

A minority (12.6%) of respondents, mainly postholders, reported they had not known what to expect from the new posts ("I expected it to be formal and boring, all 'proper teachers'...but the staff are varied, several are from industry so I have fitted in better that expected").

Five managers reported that their expectation had not been met: postholders had failed to develop facilities for independent learning, to develop liaison with information staff, or to increase opportunities for staff training in IT.

7. Could other schools learn from these innovative posts?

It was noted at the start of this chapter that CTCs were expected to be 'beacons of excellence' for other schools to emulate. Accordingly, respondents were asked if they considered whether, and in what ways, other schools could learn from the innovative posts.

None of the governors talked about specific posts but, rather, about the lessons of CTCs in general for the maintained sector. Two thirds thought there were transferable lessons to do with organisation and relationships ("The response generated by treating pupils as young adults...the different arrangements at break time...the high expectations and the way the students deliver...the high levels of trust and responsibility and the prompt dealing with transgressions"); with structure (leaner and flatter, with more responsibility given to middle managers); with innovations in team teaching and cross-curriculum work; and with the 'arms length' role of governors ("We are good at contacting and fund-raising but intervene only if there are problems").

The responses for other groups are presented in Table 6.21.

A high proportion of respondents considered that other schools could learn from the posts, although several qualified their answer. The largest number of responses (35.6%), especially from teachers, was that schools needed designated postholders with expertise, who had management backing and, in some cases, high status, to undertake a range of responsibilities. These responsibilities included promoting new courses and forms of assessment, overseeing ("in these days of self-publicity") marketing and public relations, and raising the profile of technological subjects. The value of schools learning from the 'real world' experience which associate staff brought from industry or commerce was noted by 10.6 per cent (half of them postholders). As one of them put it, "There's a need to look at the wider concept of education from real life, not just from the academic point of view... it would benefit any school to have industrial links like this college has...we are training students to go out and work...if the education system does not prepare them for that, it's failing them". Only 3.9 per cent considered there were financial lessons to be learned ("It must be cost-effective to bring in all-rounders... there's all kinds of bits and pieces that need to be done...many people with intelligence and ability could do all these things and let teachers teach").

Table 6.21 Could other schools learn from these innovative posts?

Response	SMT	Line-man	Teachers	Ass. staff	Total	%
N	20	28	27	32	107	_
Yes, sch. need expertise	5	7	14	11	37	35.6
Yes, sch. need real world	1	3	2	5	11	10.6
Yes, posts cost-effective	0	1	0	3	4	3 9
Yes, but sch. already are	4	6	4	1	15	14.4
Yes, but shld be mutual.	5	5	4	0	14	13.5
Other	0	4	1	11	16	15.4
No	1	1	0	0	2	1.9
D/k	1	1	2	1	5	4.7
Total	17	28	27	32	104	100

Missing = 3

Over a quarter of the "Yes" respondents qualified their replies with a 'but'. Thus, 14.4 per cent commented on how schools already were developing some similar posts, albeit with a lower profile or still linked to teaching posts ("Most secondary schools now have someone A further 13.5 per cent (none of them postholders) to keep the network running"). considered the learning should be mutual ("There are some good maintained schools we could learn from"). The varied remarks coded as "Other", mainly from postholders, referred to maintained schools not being able to afford their posts and the perceived hostility of teachers ("People like me can rub teachers up the wrong way. Professional teachers have made an investment to qualify. Yet here are outsiders - upstarts- coming in as 'can do' people who make things happen"). Two "No" respondents, both managers, disassociated themselves from the notion of 'beacons of excellence' ("an albatross CTCs have been saddled with"). These managers, with extensive experience in the maintained sector, reflected the views of Whitty, Edwards and Gewirtz (1993) that, rather than being in sympathy with "the (CTC) initiative's political objectives", they welcomed the opportunity presented by the new colleges to achieve "more radical and rapid changes... than had seemed feasible in an LEA setting". (p 96)

8. Dissemination

Respondents were asked if they had made any attempts to disseminate perceived benefits of the 32 posts, either within the CTC network or beyond. Governors responded in general terms about their attempts to promote CTCs as innovative institutions, via the boards and committees on which they sat. Almost a third of them considered that innovative features of the colleges, such as the five-term year, were being contemplated by local schools ("The attitudes and modus operandi of CTCs are now picked up by others...after the politics have been got out of the way"). Responses from other groups are shown in Tables 6.22 and 6.23.

The results indicated that over a quarter of these respondents, mainly senior managers and line-managers, had made some attempts within the CTC network to publicise their staffing innovations. Half the senior managers had contributed to CTC Trust publications, fed information through various CTC committees or conferences, or advised applicants for

affiliated CTC status or for Technology Schools Initiative monies ("You start with a few flagships and then have more at lower funding levels"). Senior staff and line-managers had hosted visits for staff from other CTCs who were interested in posts designated, for example, to developments in IT or GNVQs.

Table 6.22 Attempts to disseminate innovations within the CTC network

Response	SMT	Line-man	Teachers	Ass. staff	Total	%
N	20	28	27	32	107	-
Yes	9	10	0	9	28	28
No	9	17	21	17	64	64
No, but	0	1	1	6	8	8
Total	18	28	22	32	100	100

Missing = 7

Teachers (as Fullan, 1991 noted) did not, on the whole, have access to the geographically far-flung CTC network and none reported dissemination within it. Nine postholders, however, reported meetings or informal contacts, usually with similar postholders or their managers, in other CTCs. This may have been because these particular postholders had more flexibility over their time than would most classroom teachers. Moreover, the contacts had been not only a vehicle for providing information about their role, but a means of finding out how similar responsibilities were dealt with in other colleges. As one site/facilities postholder reported, "I was given a brief to communicate with other CTCs... I visited three but found no equivalent role". Another two reported previous attempts which had not been successful ("We tried in the early days. Its a difficult one. The colleges are all so different and the level of involvement is so intense in one's own CTC").

The majority of respondents (64%) had made no attempt at dissemination. Senior managers added that they were too busy or that it was too soon in the life of the college to claim success for experimental posts. Line-managers also noted the lack of time or the lack of

Benefits of the 32 Posts

contact with other CTCs.

Most of the "No, but" replies were from postholders who reported that, mainly due to time constraints, they had not attempted dissemination but that they would like to do so. Two, however, had each been invited by another CTC to act as consultants but it had been decided by their respective principals that the time could not be spared. In one case this had been resented by the postholder.

Respondents were also asked about attempts at dissemination beyond the CTC network. Their responses are presented in Table 6.23.

Table 6.23 Attempts at wider dissemination

Response	SMT	Line-man	Teachers	Ass. staff	Total	%
N	20	28	27	32	107	100
Yes	5	5	1	8	19	19
No	11	21	18	21	71	71
No, but	2	2	3	3	10	10
Total	18	28	22	32	100	100

Missing = 7

The responses show that only one fifth of respondents, proportionately more SMT and associate staff, had attempted any dissemination: only one teacher had done so. Respondents described hosting meetings, receiving visits from teams or individuals, and giving talks. As one senior manager stated, "How do we disseminate? Not by saying - as some have - 'We are the best'. We say 'we've got a model, we think it works, come and see'...and lots do". One senior manager claimed local schools were emulating the CTC organisation (longer opening hours, the 5-term year, extension studies). Another had been contacted by schools interested in the CTC's IT provision and electronic registration or seeking advice on applying for Technology School status.

Line-managers reported that three postholders had met with IT staff from local secondary schools and FE colleges and two had participated in national conferences on, respectively, science education and GNVQs. The sole teacher in this category reported passing on information about a postholder's staff development practices to a company with whom the college organised staff exchanges.

Eight (a quarter of) postholders stated that they had attempted to publicise their roles by a variety of methods. Two were senior managers and six were middle managers. Five were involved in IT, three had a development or liaison brief. All eight had the skills and the opportunity, and were expected, to disseminate their activities by talking at conferences ("there's a cross-fertilisation of ideas"); writing articles and producing training materials.

Over half the senior managers and three quarters of line-managers answered "No". Principals and senior managers, leaders of high profile and often controversial institutions, might have been expected to publicise staffing innovations, so it was surprising that not more reported attempts to do so. The reasons they gave were lack of time; the negative attitudes towards the CTCs in their local authorities; the "unrealistic" time and resource implications for schools wishing to emulate the innovations; the relative newness of the innovations; and a distaste for publicity seeking. Thus, one principal, spurning what Whitty, Edwards and Gewirtz (1993) termed the role of "Trojan horse planted in the midst of maintained secondary education" (p 15), reported that the staffing innovations were "a source of satisfaction...(but) it is for others to publicise, not me. Some CTC colleges shout their mouths off. But the best way to effect change is to set targets. Do you want glory - or change?". Indeed, as Whitty et al and Walford and Miller (1991) pointed out, to achieve the 'beacon effect' or to succeed as catalysts would have necessitated greater integration into the very LEA networks which had been so antagonised by the introduction of CTCs.

Only one teacher and one postholder amplified their "No" response: one did not consider dissemination to be her responsibility and the other lacked the confidence to do it.

A minority (10%) of respondents qualified their "No" response with a "but". Managers acknowledged that they should look at how the innovative posts could be promoted. One postholder intended "marketing" her liaison role (by acting as a consultant). The other two reported they would like to publicise their role but were inhibited by the negative local environment.

9. Discussion

The answer to the second research question is that there were considerable benefits resulting from the 32 posts. They are summarised below. This is followed by a discussion of the issues raised by the data reported in this chapter.

Main benefits

The main benefits emerging from these detailed findings are interlinked. The CTCs' independence gave them the freedom to bring in expertise from outside - essential to enable them to operate without the supporting umbrella of the LEAs - but also to provide 'customised' advice and expertise which improved their planning and decision-making and often led to make more cost-effective use of resources. These additional skills also provided more learning opportunities for students, not only because associate staff freed the teachers for their pedagogic role but, in many cases, because of postholders' interactions with students.

Differential benefits

It was not surprising that different groups of respondents benefitted from the different categories of posts. There were numerous examples, however, of the views about one post being corroborated by the views from other groups. Senior managers, for example, often recognised the benefits of some posts to colleagues, although not directly to themselves. In fact, they gained most from the management support posts. Thus, they were more likely to comment on the value of those posts which had taken on the responsibilities formerly held by an LEA, which contributed to the planning and decision-making processes and which freed other staff to focus on management tasks. Line-managers and teachers benefitted more

directly from curriculum support posts. Postholders who were able to make an input to teaching were particularly valued by line-managers who had to deal with staff deployment and the daily headache of arranging 'cover' for absent staff, or of being called out of lessons themselves. Teachers were less likely to favour postholders' teaching input, although they benefitted from their specific expertise and from being able to delegate to them routine tasks. Associate staff stressed their flexibility, the value of their previous experience and the enhanced job opportunities they now enjoyed. All groups welcomed the bringing in of external expertise and the specialist staff training which, in some cases, new postholders were able to provide.

Competence of associate staff

Some of the associate staff were more competent than their teacher colleagues in particular areas of the curriculum - especially where they possessed technical expertise. This had implications for teachers (for their views of professionalism and perceptions of their own territory) and for associate staff (through the risk of them being exploited). These issues will be taken up in subsequent chapters.

Career progression for associate staff

The wide scope CTCs enjoyed resulted in some rather unusual posts and permitted, in some cases, personal attributes to shape posts in idiosyncratic ways. The flexibility and willingness of postholders had been particularly helpful in the early days of new colleges, when staff numbers were relatively small and all were expected to pull together for the good of the new enterprise. Some associate staff, often with the encouragement of managers, had used this opportunity to carve out for themselves interesting and sometimes unusual roles. A few years later, it was not always clear where experience in such posts would lead. In a few cases staff felt they faced a career *impasse*.

Another (probably unforseen) consequence of the innovations was that many associate staff had developed aspirations which the college management could not meet. Some of the problems which developed as a result of this are discussed in subsequent chapters.

The personality factor

Related to the previous point is the 'personality' factor. The personality of postholders figured to a considerable extent in other respondents' views of the efficacy (or otherwise) of the post. Where posts were new or unusual there were few guidelines to follow. In new institutions there was often a strong camaraderie - a feeling of all pulling together for the common good - and some postholders had been willing to undertake tasks unrelated to the initial requirements of their job. One result of this was that the consideration of the role was hard to separate from consideration of the personality of the incumbent. There was a danger that, when the college reached its full complement and initial camaraderie had weakened, more traditional and inflexible attitudes might emerge. (A postholder remarked, "We started from scratch in a small team of 15...there was great optimism and team spirit - a 'buzz'. Now the momentum has slowed...it's harder to get things done...its more hierarchical and bureaucratic".)

Ownership and a culture of innovation

A sense of ownership - a feeling of being part of a new innovative educational institution - emerged from respondents' views on the benefits of the posts. Some of the responses suggested the importance of the 'meaning' of the posts to those involved with them - a dimension of innovation which is discussed in Chapter Ten. The sense of ownership contributed to a positive culture in the CTCs. It underpinned the willingness of staff to do all they could to make a success of 'their' institution and was reflected in the high levels of job satisfaction reported of, and by, associate staff. Like the staff in Walford and Miller's (1991) study, many "recognize that they are part of a very 'special' school and work to ensure that the experiment is successful". (p 155)

Opportunism

Principals and senior managers used the freedom enjoyed by the colleges to improve the 'people effectiveness' of their institutions. The use of associate staff in instructing or teaching was perhaps the clearest example of this opportunism which will be discussed in more detail in Chapter 11.

Generalisability

The political and economic circumstances surrounding the creation of CTCs meant that they had to attract and maintain sponsors' interest. In addition, many colleges faced the antagonism and resentment of the local authority in which they were located which some colleges feared might adversely affect their recruitment from 'feeder' primary schools. These factors contributed to the creation of posts designed to form bridges between the colleges and the community, parents, sponsors and industry. Independence from LEAs also led to the creation of specific posts to undertake functions which the new CTCs had assumed. The technological thrust of the CTCs meant that, in the administration and in the curriculum, IT was bound to be central. Experienced staff who could take responsibility for the IT network, support and train staff in its use and contribute to the use of IT across the curriculum, were essential. At the time of their inception all of these posts would have been very CTC-specific but several developments since then indicate the generalisability of these posts and their benefits to other schools.

The increase in 'quasi independent' grant maintained schools and technology schools, the delegation of maintained school budgets, the extension of market principles, the publication of league tables, and the expansion of IT in administration and the curriculum are just some of the developments. All of them increase the need for schools to employ staff able to deal with complex budgets, a broader range of site issues, data storage and retrieval, and curriculum change. Given the intention that CTCs be 'beacons', it was somewhat surprising that more attempts at dissemination of information about the staffing innovations had not taken place. Time pressures and newness of some posts were obvious constraints. But there was also a reluctance on the part of some senior staff, with considerable experience in the maintained sector, to flaunt their well-resourced independence in front of former colleagues, who were still constrained by financial pressures and by, as one principal put it, "that external rigidity laid across their bows by LEAs and the unions". The issue of generalisability will be returned to in Chapters Ten and Eleven.

Benefits of the 32 Posts

The respondents' views about perceived benefits of the 32 posts reported in this chapter perhaps present an over-positive picture. This could have been because respondents felt a sense of loyalty to their sometimes embattled institutions, the success of which meant much to them, in both personal and professional terms. Innovation involves risk-taking but staff, particularly in those CTCs in hostile LEAs, were aware that any failures or adverse publicity would be seized upon with alacrity. Such circumstances could have led to the over-emphasis of the benefits reported in this chapter. These positive views will be balanced somewhat by the data in the next chapter which deal with problems and drawbacks.

Chapter Seven

PROBLEMS AND CRITICISMS

Introduction

The preceding chapter presented very positive views of the staffing innovations. It was also important, however, for the research to identify problems and criticisms associated with the three categories of posts. The focus of this chapter, therefore, is on the third research question about the 32 innovative posts: What were their perceived problems?

Whereas the ESRC report contained an overview of the problems, this chapter presents, for the first time, more detailed analyses of, and reflections on, the data. The format of the chapter is similar to Chapter Six. The three categories of posts, with their respective emphases (supporting management; supporting the curriculum; supporting both management and the curriculum) are taken in turn. Problems associated with the posts are examined in relation to two organisational spheres of the colleges' operations and for specific groups. With the exception of section five, which presents the views of governors, all the material has been drawn from interviews with senior managers, line-managers, teachers and the associate staff.

The chapter has six sections.

- 1. The organisation and management of the colleges
- 2. The organisation and management of teaching and learning
- 3. The respondent's own role
- 4. Problems experienced by the postholders
- 5. Governors' views
- 6. Discussion.

As before, each aspect is taken in turn and the responses for the three categories of staff are presented by each group of respondents. Although the questions were phrased in terms of problems related to the *post*, respondents' views frequently reflected problems perceived

with the *postholder*. Some problems are noted in the text but are discussed in more detail in section six and again in the concluding chapter of the thesis. The numbers of problems reported were considerably fewer than the numbers of benefits, particularly in the first two sections.

As was stated in Chapter Six, the interview questions elicited many detailed responses which have had to be summarised. In each subsection, however, selected quotations are included in order to give a flavour of the fuller responses.

1. The organisation and management of the colleges

The responses are presented in Table 7.1, 7.2 and 7.3.

1.1 Management support

Table 7.1 Problems associated with ten management support posts for the organisation and management of the college

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Public relations	-	-	-	-	-
Site/welfare*	1	-	-	-	1
Director of finance /administration*	-	-	-	-	-
Parent/college relations	-	-	-	-	-
Site/buyer	-	1	-	-	1
Systems manager	-	-	-	•	-
Personnel	-	-	-	1	1
Site/facilities manager	-	-	_	-	-
Systems manager		-	1	-	1
Site/facilities manager	_	1	-	•	1
Total	1	2	1	1	5

¹ Order of posts remains constant.

² SMT included principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

Five posts in this group elicited comments. One senior manager reported problems with a dual post where, as the college numbers increased, the postholder's conflicting priorities were causing increasing concern. A line-manager reported that "the narrow vision" of a postholder, who had spent several years in one industry, made him unwilling to explore new, possibly more effective, systems. Teachers' resistance to a more streamlined system of ordering and purchasing which, in effect, monitored their expenditure, were reported by another line-manager. One teacher commented that the scope of a systems manager's post was so broad that the overworked postholder did not always get things done as speedily as teachers would like. Another response came from a postholder who was aware that the cost of her salary had been criticised by some staff, in her view unjustly ("People don't always see, and connect, what we do to what the LEA used to do").

1.2 Curriculum support

The responses are set out in Table 7.2.

Most of these 13 posts would have had little to do with the overall organisation of the colleges so it was not surprising that only two of the 13 elicited three critical comments from respondents. A senior manager reported that governors had expected a liaison post to develop links with business and to have a high public profile in attracting new sponsors. When this had not happened the governors had lost interest in the post which was no longer part of the senior management team. The teacher response focused on the lack of clarity of the same post ("It was a new role, hard to implement. No-one seemed really sure what it was to do. The brief was quite woolly. It was just allowed to develop - or not"). This insufficiently thought-through post had led to tensions and confusion. In the second case, the video/film technician recognised that the cost of the post and of the equipment meant other provision, such as extra teacher time, had to be foregone.

Table 7.2 Problems associated with 13 curriculum support posts for the organisation and management of the college

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Information resources manager	ı	•	•	•	-
Teacher/technician	-	-	•	-	•
Learning liaison manager	-	-	-	-	•
Senior science technician	_	-	-	-	•
Senior co-ordinating technician	-	-	-	-	-
Technician/tutor	-	-	-	-	-
Curriculum support*	-	-	-	-	-
Broadcaster/tutor*	-	-	-	-	-
Information resources manager	-	<u>-</u>	-	-	-
Video/film technician	-	-	-	1	1
Media instructor	_	-	-	-	
LTS trainee	-	-	-	-	-
Business links	1	_	1	-	2
Total	1	-	1	1	3

^{*}No teacher responses for these posts

1.3 Management and curriculum support

The responses are set out in Table 7.3.

Of these nine posts, two attracted criticisms which provided some corroboration of views between three groups of respondents. In the first case, the criticisms were directed towards both the post and the postholder. A senior manager regretted, with hindsight, the way a post had been tailored to meet the postholder's skills and aspirations (to complete a specific, potentially lucrative, project) and the college's disparate needs (for income generation and management). It was reported that the postholder, who was used to more autonomy over how her time was allocated, had difficulty fitting into the departmental framework of responsibilities and accountability, so that "I wish we'd appointed a school-experience person

even though they would not be able to go beyond the school-type tasks". The line-manager was critical of the cost of the post: the original intention had been that all or a major part of the salary would be generated by the postholder. This result had not yet been achieved, although the line-manager admitted the input for staff and students had been a fortuitous and cost-effective afterthought. The teacher reported staff resentment at the cost of the post, exacerbated by a lack of awareness of what the postholder actually did. (No problems were reported by the incumbent.)

Table 7.3 Problems associated with nine management and curriculum support posts for the organisation and management of the college

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
IT manager	-	1	1	1	3
Graphic designer	-	_	-	-	-
IT manager*	-	1	-	-	1
Development manager	-	-	1	-	1
IT manager	-	-	_	-	-
Vocational assessments	-	-	-	-	-
Projects manager	1	1	1	-	3
Senior manager	-	-	-	1	1
Technician manager	-	1	-	-	1
Total	1	4	3	2	10

^{*}No teacher responses for these posts

In the second case, the criticisms were of the cost of, and the excessive demands on, the post-but not of the performance of the highly-praised incumbent. Thus, both the line-manager and the postholder himself questioned the cost of having in the post someone who was not only a qualified and experienced teacher but also well qualified in IT systems and IT engineering. Both recognised, however, the benefits of the postholder's educational input. As the postholder stated, "Dividing the post and just having a technical person would have been

cheaper. But my role is so broad and cross-college, the whole CTC would be affected adversely, not just one department". A teacher commented on the pressure of the dual role ("He has so much to do. I can't see how, as the college grows and gets post-16 students, he will balance teaching with the managerial rôle").

Four posts elicited single critical comments. One line-manager questioned the wisdom of not having a qualified teacher in another of the IT manager posts but concluded that "appointing a traditional qualified teacher would have had many more disadvantages". A second line-manager was aware that the technician manager (who also taught) was criticised for neglecting his main responsibility, by a head of department who might have liked the postholder and his team under departmental management. The college philosophy, however, favoured a decentralised service. Of the development manager post, a teacher reported that neither staff nor the postholder seemed to have clear expectations of the new post and this had put the postholder at a disadvantage. The final response was from a senior postholder, aware that "for my salary the college could have two teachers".

Overall, respondents reported problems with 13 of the 32 posts. In 11 cases comments referred only to the post; one postholder was the subject of criticism and, in one case, both the post and the incumbent were problematic. Problems were related to the pressure of extensive briefs on postholders; lack of clarity of posts; the costs of posts; and industrial or teacher cultures which were resistant to change. Few problems were reported in this section with curriculum support staff whose work, on the whole, impinged little on the organisation and administration of the colleges.

2. The organisation and management of teaching and learning

The findings are set out in Tables 7.4, 7.5 and 7.6.

2.1 Management support

These posts had only marginal connections with teaching and learning. Thus, only one senior manager commented - that students might have suffered as a consequence of a post taking

money which might have been used for books. No line-managers reported problems. One teacher described the tensions resulting from a site/facilities manager's attempts to maintain a "business environment" in the college. These attempts were perceived to be in tune with sponsors' commercially-oriented notions of a CTC but in conflict with teachers' views on the importance of displaying students' work and on the arrangement of teaching spaces and equipment primarily to meet educational needs. In the teacher's opinion, business-influenced line-management structures did not facilitate speedy resolution of the tensions. A systems manager considered that the separation of responsibilities for the curriculum and the network had meant that the IT curriculum leader (a teacher) had less access to up-to-date IT technical knowledge, so was less able to deal with students' technical problems. (The teacher did not comment.)

Table 7.4 Problems associated with ten management support posts for the organisation and

management of teaching and learning

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Public relations	-	-	-	•	-
Site/welfare*	-	•	-] -	-
Director of Finance and Admin*	-	•	-	-	-
Parent/college relations	1	-	-	-	1
Site/buyer	-	-	-	-	-
Systems manager	-		•	1	1
Personnel	-	-	-	-	-
Site/facilities manager	•	-	-	-	-
Systems manager	-	-	-	-	-
Site/facilities manager	-	-	1	-	1
Total	1]_	1	1	3

¹ Order of posts remains constant.

² SMT included principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

2.2 Curriculum support

Table 7.5 Problems associated with 13 curriculum support posts for the organisation and management of teaching and learning

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Information resources manager	-	-	-	-	<u>-</u>
Teacher/technician	-	1	-	1	2
Learning liaison manager	-	1	1	-	2
Senior science technician	-	-	-	-	-
Senior co-ordinating technician	_	1	1	-	2
Technician/tutor	-	1	1	-	2
Curriculum support*	-	-	-	1	1
Broadcaster/tutor*	-	_	_	-	-
Information resources manager	-	-	-	-	-
Video/film technician	-	-	1	-	1
Media instructor	-	1	-	1	2
LTS trainee	_	-	-	-	-
Business links	1	1	-	1	3
Total	1	6	4	4	15

^{*}No teacher responses for these posts

Considerably more problems were reported with this group: eight posts were identified by 15 respondents. Where a post (or postholder) was the recipient of comments from more than one respondent some corroboration of views was possible. The business links post occasioned the most comments, from three of the four possible respondents, so these are presented together. The only senior manager in this group to respond declared his that the postholder had failed to meet expectations regarding the establishment of economic understanding in the curriculum, a key goal when the post was created. The line-manager reported that the postholder "did not always see the relevance of curriculum issues and their implementation".

The postholder himself thought students' learning might have suffered from his lack of a teaching qualification ("I feel that...not having a teaching background and a teaching qualification is a disadvantage. It's harder for people to take you seriously"). It was also acknowledged, however, that the post was fraught with difficulties, having been created from an amalgamation of responsibilities, some of them ceded, reportedly reluctantly, by teachers. The postholder regretted teachers' lack of appreciation of his role (reflected in their reported unwillingness to release students for events arranged by the postholder) and managers' failure to co-operate over his special projects.

Two line-managers admitted they had dilemmas, increasing as their college numbers grew, over how best to use two posts. Thus, of the teacher/technician it was reported that "Everybody is extremely impressed with him so to have him looking after the stores is a waste of his talents...but if we make teaching demands on him in the classroom it means teachers have to do more in stock and material preparation".

A different issue was raised in relation to the other postholder of whom it was reported, "She's good with small groups but has difficulties with large groups...she has lessons to learn regarding classroom management and the pace of lessons". In an attempt to ameliorate the situation this line-manager had tried to create "a culture of discussing educational issues - and she's part of those discussions". The line-manager of another postholder thought the enhanced role resulted in teacher support being spread too thinly because departments, previously not supported, now demanded their share of the resource. Moreover, management of the post had been removed from a department head, a move which had not been popular with some middle managers.

A different kind of complaint was that of having to deal with disgruntled colleagues who had to take in pupils whom a postholder had excluded from his class for their misbehaviour. Another postholder was initially appointed because senior managers were impressed by the her "vision and flexibility and ease with which she could adapt the outside world" to meet curriculum needs. But the anticipated gains from the post were already losing momentum.

Furthermore, the time the postholder spent off-site was resented by teachers and was becoming detrimental to the curriculum.

Teachers noted problems with four posts. One said, "She relies too much on past industrial experience and suffers from inertia when we talk about innovation ...her lack of flexibility can lead to departmental tensions". Moreover, these tensions were exacerbated when the postholder's preference for teaching led her to neglect other tasks. A teacher echoed managers' criticisms of a postholder for sometimes being off-site during teaching time. The attitudes and priorities of one postholder - but not the post - could be problematic. The postholder was reported as having "professional disdain" for teachers and was criticised for "speaking unprofessionally in the staff room" and for "creating shrines" of expensive equipment.

Four of the 13 associate staff reported problems. (The business links post has already been dealt with above.) One postholder reported being frequently used for cover or for registration, which not only meant that teachers had to do their own technical preparation but the postholder was under greater pressure to keep up with all the demands on the post. Another postholder recalled being asked, particularly in the early days of the new college, to take extension classes in a subject about which he knew little ("I struggled and struggled - I felt I was drowning and waving away"). There were still occasions when the postholder was used for cover in areas outside his expertise ("It's a case of going in and 'blah ing' and babysitting").

2.3 Management and curriculum support

Only one senior manager and one line-manager reported problems with posts in this group. A principal who had appointed an IT manager from industry (over internal teacher candidates) reported that it had been hard to get the aggrieved teachers back to working in the department team under their new manager. The line-manager stated that another IT manager had been slower to adapt than a teacher would have been - but that delay was probably outweighed by the advantages of the postholder's industrial experience. Two teachers responded. One

reported that the lack of teaching experience was a disadvantage when teachers sought a postholder's advice ("She lacks experience so possibly lacks credibility with teachers. They like to get advice from someone who has experience of their problems").

Table 7.6 Problems associated with nine management and curriculum support posts for the organisation and management of teaching and learning

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
IT manager	-	-	-	1	1
Graphics designer	_	_	_	-	-
IT manager*	_	1	-	1	2
Development manager	-	-	1	-	1
IT manager	1	-	-	1	2
Vocational assessments	-	-	-	-	-
Projects manager	-	-	-	-	-
Senior manager	-	-	1	-	1
Technician manager	-	-	-	_	-
Total	1	1	2	3	7

^{*}No teacher responses for these posts

Responses from the associate staff came only from three IT managers. One, a qualified teacher, stated that the severe pressure of the dual responsibilities meant he did not give as much time to the curriculum as he should. The other two, recruited direct from industry, focused on their educational shortcomings and the problems of being accepted by teachers.

The first admitted his initial "ignorance of alternative examinations and vocational courses". He was concerned that such gaps in his knowledge meant he had not given the same attention to some assessment systems as he had to the more familiar administration and management systems ("I play to my strengths"). He considered that the college was unlikely "to meet goals set in the two areas" of administration and curriculum. One set of goals would always take priority and the postholder would be expected to maintain "a difficult balancing act". The second IT manager acknowledged that he had to learn how to manage his teaching and how best to use the talents of his IT team which included teachers who had competed unsuccessfully for his post. He considered both tasks would have been easier if, initially, he had been given more information on course structures and student discipline.

Overall, 16 of the 32 posts received some criticisms or had led to problems. In nine cases comments were directed towards the post; in six cases towards the postholder and in one case both were problematic. The comparatively few problems reported in relation to the management support posts were to do with costs and a clash between business and education cultures. The curriculum - related posts and the joint posts suffered from teachers' resistance to, or resentment of, the new posts; the disappointing performance of postholders, sometimes exacerbated by their lack of teaching qualifications or school experience; the pressure of heavy workloads; and the potential for exploitation in the inappropriate deployment of staff.

3. The respondent's own role

This question was aimed at eliciting information about any negative effects of the new posts on managers or teachers. The results are presented in Tables 7.7, 7.7 and 7.8. Associate staff were not asked this question. Their views on problems they experienced will be expressed in the next section.

3.1 Management support

No posts were identified as creating specific difficulties for principals and other senior managers or for teachers. This may have been because many of these posts had been set up specifically to assist the SMT, whose members would have been well placed to deal with

Problems and Criticisms

problems, and because teachers had less contact with them. Line-managers noted problems with three posts. In the first case the line-manager reported that the postholder, after many years in a male-dominated industry, "does not like being managed, least of all by a woman, so he tends to try to pull the wool over my eyes" and to capitalise on the gaps in her technical knowledge which then 'wrong-footed' her. In another college, the line-manager had to deal with teachers' "unrealistic expectations" of a new post. In a college where staff had little experience of IT, the new systems manager post, though considered necessary, had placed extra pressure on the line-manager's time.

Table 7.7 Problems associated with ten management support posts for the respondent's own role

Name of post	SMT	LM	Ts	Total
Number	20	28	27	75
Public relations	-	-	-	-
Site/welfare*	-	-	-	-
Director of Finance and Admin*	-	•	•	-
Parent/college relations	-	-	_	-
Site/buyer	-	-	-	-
Systems manager	-	-	-	-
Personnel	-	-	-	-
Site/facilities manager	-	1	-	1
Systems manager	-	1	-	1
Site/facilities manager	-	1	-	1
Total	-	3	-	3

¹ Order of posts remains constant.

3.2 Curriculum support

Senior managers were less affected by these posts. Only one reported problems for his own role, with a postholder who was "good at sparking off ideas" but whose inability to prioritise meant she got trapped in detail and was thus an "ineffective manager".

² SMT included principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

Table 7.8 Problems associated with 13 curriculum support posts for the respondent's own role

Name of post	SMT	LM	Ts	Total
Number	20	28	27	75
Information resources manager	-	-	-	-
Teacher/technician	-	1	1	2
Learning liaison manager	1	-	-	1
Senior science technician	•	-	-	-
Senior co-ordinating technician	-	-	-	-
Technician/tutor	-	1	1	2
Curriculum support*	-	-	-	-
Broadcaster/tutor*	-	-	-	-
Information resources manager	-	-	-	-
Video/film technician	-	1	1	2
Media instructor	-	1	-	1
LTS trainee	-	-	_	-
Business links	-	1	1	2
Total	1	5	4	10

^{*}No teacher responses for these posts

Line-managers noted five posts. There was some corroboration of views over four of them. The line-managers of the first two posts reported similar problems, but for different reasons. In the first case, it was reported that the postholder was not capable of maintaining some of the workshop equipment. Accordingly, the line-manager did that task and "left him to do the things he is good at". This, however, took the line-manager away from his primary responsibility of teaching. The second line-manager needed a full-time technician but the postholder preferred the teaching side of her dual rôle. Consequently, the manager reported "I spend more time being a technician than she does". The line-manager acknowledged it was difficult to "recognise aspirations, and balance them with the timetable and resources…I want to be fair to her and her aspirations but also be fair to the kids". Another

line-manager reported that he and the postholder sometimes clashed over their different expectations of the role ("She is not a teacher. She is employed for a reason. If she gets too involved with teaching she would not be free to do the technician tasks for which she is employed. She likes elements of the teaching and gets dissatisfied when I want routine tasks done"). The line-manager of a liaison post reported difficulties over the 'grey areas' around whether he or the postholder took the lead in some courses. Moreover, he had to deal with teachers' resentment over the time the postholder spent with external agencies when he was not in class - or even in the college. The teachers tended to think the postholder, if not onsite, was not working. A rather different problem was reported with a postholder who had been given groups to teach which included "a variety of students whom he did not like and whom, basically, he chopped from the class...you can't just chuck the younger ones out into the corridor but he did...so they had to be accommodated elsewhere which caused ructions".

Teachers had experienced problems with five posts. Two reported that the technicians' roles could be overshadowed by the teaching roles, in the first case due to pressures of work, in the second case due to the postholder's preference. The latter was a source of irritation to colleagues, who then had to do their own preparation, which was not cost-effective ("It eats into my time for lesson preparation, planning and marking"). An insensitive change of line-manager had created tensions between one teacher and a postholder (supplanted as the teacher's manager). Another postholder was criticised for inflexibility over timekeeping when teacher colleagues were "working flat out to make the place a success". Of one post a teacher, whilst appreciating the work of the postholder, regretted his own reduced opportunities for keeping up-to-date ("You miss a bit of what's happening - I no longer feel in control of my patch").

3.3 Management and curriculum support

No senior managers reported problems. Two line-managers described difficulties with postholders who had heavy IT responsibilities. One highly pressured IT manager sometimes was unduly dismissive of teachers' problems with computers and the line-manager had to deal with their annoyance. Another had been slow to adjust from a business to an

Problems and Criticisms

educational environment and had exercised poor judgement over when, and when not, to consult.

The line-manager of the projects manager reported that part of the role was entrepreneurial, quite different from, and not very compatible with, the postholder's other more routine responsibilities, which the manager thought the postholder found boring and which she put off - to the irritation of teachers.

Table 7.9 Problems associated with nine management curriculum support posts for the respondent's own role

Name of post	SMT	LM	Ts	Total
Number	20	28	27	75
IT manager	-	1	-	1
Graphic designer	-	-	-	-
IT manager*	-	1	-	l
Development manager	-	-	-	-
IT manager	-	-	•	-
Vocational assessments	-	-	-	-
Projects manager	-	1	-	l
Senior manager	-	-	-	-
Technician manager	-	-	_	-
Total	-	3	-	3

^{*}No teacher responses for these posts

Overall, 12 of the 32 posts received some criticisms - in three cases directed at the post, in seven cases at the postholder and in two cases at both. Problems had arisen over posts because of teachers' unrealistic expectations or new management pressures on the linemanager. Criticisms of the postholders were to do with the displacement of some of their routine tasks to line-managers or teachers or to the clashes between educational and industrial cultures. Criticisms of both post and postholder were to do with teachers' lack of

Problems and Criticisms

understanding of a post, resentment of the postholders' roles and to unclear or ill-matched responsibilities.

4. Problems experienced by the postholders

4.1. Management support

The responses are set out in Table 7.10.

Table 7.10 Problems experienced by the ten management support postholders

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Public relations	1	-	_	1	2
Site/welfare*	-	-	-	1	1
Director of Finance/administration*	-	-	-	1	1
Parent/college relations	1	1	1	1	4
Site/buyer	_	1	-	-	1
Systems manager	-	1		1	3
Personnel	_	-	•	1	1
Site/facilities manager	-	1	-	1	2
Systems manager	_	1	1	1	3
Site/facilities manager	-	-	1	1	2
Total	2	5	4	9	20

¹ Order of posts remains constant.

Senior managers perceived problems for two liaison postholders. The parent/college relations post was commented on by each category of respondents so those corroborating views are reported. A senior manager stated that, as the college reached its full complement, the broader scope of the post had greatly increased the pressure on the postholder. Linemanagers reported that the postholder often had to cope with irate parents (and, sometimes,

² SMT included principals. Some posts were commented on by more than one senior manager.

³ Some respondents line-managed two posts

^{*} No teacher responses for these posts.

teachers too). Teachers acknowledged that the postholder "gets cheesed-off because he gets all the complaints... he takes the flack which gets him down at times". The postholder echoed this ("I take a lot of flack").

Line-managers stated that the systems managers worked under intense pressures and were subject to unrealistic expectations from colleagues unused to, and not comfortable with, new technology. One of them was reported to have been "always disappointed by the inability of the college to provide support". The other was said to be in conflict with colleagues over responsibility for written and electronic resources. The line-managers of two site-related posts reported that postholders had to cope with, respectively, teachers' hostility towards a more streamlined system for purchasing and less line-management support than was desirable with a new post.

Four of these posts were also identified by teachers - and for similar reasons. One systems manager was overworked, partly because "She was not appointed until after the start of the CTC. Things had developed in different directions and had to be clawed back and redirected. If she'd been in at the start she'd have avoided errors". The other systems manager, with a commercial background, had to come to terms with managing a team in a school, rather than in a business setting. Third was a site-facilities postholder whose priorities and approach resulted in clashes with teachers over displays of work and the deployment of furniture. (The fourth post has been dealt with above.)

Associate staff were the most critical, with all but one of the ten postholders in this group reporting problems with their role, albeit in three cases these had lessened with time and experience. Two postholders reported problems stemming from teachers' perceptions and attitudes. One resented what she considered their patronising attitudes ("I had a few run-ins with some teachers...I'm a new breed - they thought 'we've never had one like her before'"); the other reported that teachers did not understand or respect her role ("I perceived there would be a mass of problems, particularly with trying to balance the needs of teaching staff with the administrative constraints and with teachers' negative perceptions of the

college administration"). The site/welfare postholder also reported difficulties in balancing the demands of managers and governors for a well-maintained site with the welfare aspects of his role, a situation which was not getting any easier as the college numbers increased. The public relations postholder reported a "lack of definition" of the role and its status.

The two systems managers reported the stresses of their job ("You wait for things to go wrong - and they do"). One had inherited a relatively new and costly IT network which had many teething problems. The postholder had to deal with the impatient reactions of staff if they had to wait for him to deal with problems they had with the network. She claimed that many of the problems could be avoided with some basic staff training in IT - if only she had the time to do it. Two other postholders reported initial anxieties over the scale of the financial responsibilities they had acquired with their posts. One commented that, as the opening of the new college approached, there was no opportunity for "a dry run...not the reassurance of procedures tried and tested...there was no-one really to confide in ...I did not want to go my line-manager and say 'look - I'm worried about x'". The other reported the burden of the financial responsibility and the "uncomfortable murmurings underground" about the cost of the post. Only the site /buyer postholder reported no problems or criticisms.

4.2 Posts providing curriculum support

Only one senior manager reported that a rather specialised brief might limit the postholder's opportunities for gaining other experience (financial and managerial), necessary if she were to fulfill her ambitions for promotion. Line-managers perceived four posts as presenting their holders with some problems. One reported the postholder "looks at her own expertise and she doesn't always feel valued. She believes her area is under-resourced and has low status". A technician was judged to feel under-stretched and to need a greater challenge but not, the line-manager hoped, at the expense of the teacher support. An unclear and fragmented job brief, tensions with teacher colleagues over their compartmentalisation of the role and unrealistic expectations of the post had all created problems for another postholder.

Table 7.11 Problems experienced by the 13 curriculum support postholders

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
Information resources manager	-	•	-	1	1
Teacher/technician	-	_	1	1	2
Learning liaison manager	1	1	•	1	3
Senior science technician	-	-	-	1	l
Senior co-ordinating technician	-	-	-	-	-
Technician/tutor	-	1	1	-	2
Curriculum support*	-	-	-	1	1
Broadcaster/tutor*	-	•	-	1	1
Information resources manager	-	-	1	1	2
Video/film technician	-	1	•	1	2
Media instructor	-	-	1	1	2
LTS trainee	-	-	-	-	••
Business links	_	1	1	1	3
Total	1	4	5	10	20

^{*}No teacher responses for these posts

Difficulties with five posts were noted by teachers. One postholder did not like teaching younger students. Another was reported as having "ended up with bits of lots of other people's jobs, which they possibly resented" and being frustrated by the boundaries teachers subsequently put around their roles and the new post. Two teachers noted the demands of dual roles. One of them spoke at length about the difficulties and pressures, as he perceived them, experienced by a postholder who "gets disillusioned at times and displays negative attitudes to planning for her teaching role....without that groundwork and knowledge and framework you can't be an effective teacher". Of another post the it was reported "The demands are great...he is trying to do teaching and technicianing...he feels divided between the two roles". An information resources manager faced unrealistic teacher expectations and abuse of the role ("The centre is seen as 'all singing/all dancing'....sometimes the

teachers use the staff there as babysitters. Teachers send the kids down with a request that they be shown how to access information and they go to the staff room for a cup of tea").

Ten of the 13 associate staff reported experiencing some difficulties. One postholder voiced several complaints - about teachers' attitudes, unexpected bureaucracy and lack of autonomy, pressure of work and acclimatising to a school environment. The postholder had found middle managers unco-operative and restrictive which made the job more difficult. As he put it, "I knew I'd have problems co-ordinating groups of staff I didn't line manage...and I did...the result was deadlock". The postholder admitted being "knocked for six by the sheer amount of work." Added to this, he reported that he "did not understand the language, culture and politics of the school". Another reported that the pressures of the dual role, and the growth in student numbers, meant he now did more menial tasks ("poor use of my time") at the expense of his more skilled input. Leave was a sore point with a postholder who frequently spent all day in a studio which had no natural light. The broadcaster/tutor, seconded from a local radio station but paid by the CTC, reported "the awkwardness of two bosses".

One of the two information resources managers, who had had taken a drop in grade to come to the CTC, said that it had taken a year to persuade management to adjust the position and "their foot-dragging" was resented. The other, with no obvious peer group amongst the staff, reported sometimes feeling isolated, particularly as line-management meetings were in abeyance. Another postholder expressed frustration on three counts: at his professional knowledge not being drawn upon when new department equipment was being purchased ("I get annoyed at being told what I do or do not need. I would not go to an academic and tell them what textbooks they need"); at the bureaucracy, the paperwork and the endless meetings ("Because the institution is new, they're trying lots of things so there are constant meetings...I say 'When you've had the preliminary meetings - then I'll come'"); and at the mixed ability intake ("I spend more time with those who can't do it than with those who can. It's frustrating"). A postholder who filled a variety of gaps felt exploited at times ("I'm a technician when it suits and a teacher when it suits. I feel I get the bad bit both ways... it's

so inconsistent... lots don't know what the hell I do"). Describing how he had helped a new young teacher plan her lessons, the postholder recalled, "It was an odd situation. I felt I was being drained of my knowledge so that she could go on and earn two and a half times my salary".

The senior science technician and the LTS trainee neither gave nor received critical comments.

4.4 Posts providing support for management and curriculum

The nine posts all had some criticisms levelled at them, although no post occasioned negative comment from all groups. Again the associate staff were the most critical respondents. Senior managers noted three posts. In two cases it was reported that the postholders had to work hard to earn the respect of teachers, including colleagues who were aggrieved at not being appointed to the posts. Both IT managers were perceived to have had difficulties adjusting to the culture of the school and to teachers' expectations of the posts.

Line-managers considered six postholders (including the two IT managers noted above) had experienced difficulties, mainly to do with relations with those they managed or were managed by, or by lack of clarity of the post. Thus, the first IT manager's previous job had clear demarcation lines, whereas the CTC staff had a high degree of professional autonomy. Consequently, the postholder initially had difficulty in knowing when and when not to consult his line-manager and when not to tread on his toes ("The managerial and professional positions needed sorting out"). The second postholder was thought to be "torn in two directions...he's very stressed at times ...he is so keen and enthusiastic he wants to do everything yesterday." The third IT manager, a qualified teacher, was reported as having had difficulties over his status in the college hierarchy in relation to heads of department ("He's never sure of his position because his post is unusual. Is he at SMT or head of department level? He'd like to think he is right up at the top...and he is paid highly. But it is difficult for him to speak to heads of departments and get them to change, they don't perceive him as having that status").

Table 7.12 Problems experienced by the nine management and curriculum support postholders

Name of post	SMT	LM	Ts	AS	Total
Number	20	28	27	32	107
IT manager	-	1	-	1	2
Graphics designer	_	1	-	1	2
IT manager*	1	1	-	1	3
Development manager	-	-	1	1	2
IT manager	1	1	_	1	3
Vocational assessments	-	-	1	1	2
Projects manager	_	1	1	1	3
Senior manager	1	-	1	1	3
Technician manager	-	1	1	1	3
Total	3	6	5	9	23

^{*}No teacher responses for these posts

The routine aspects of one post were reported as being frustrating for the postholder who seemed to consider tasks which were not creative to be beneath him. Another postholder was line-managed by a former colleague, originally of equal status. It was acknowledged that the change of line-manager had been ill-managed and initially resented by the postholder. A third postholder was reported as having a stressful time balancing incompatible components of a post which was possibly ill-conceived and ill-understood by colleagues.

Five posts were noted by teachers. One postholder was said to be under great pressure ("She wants to do a good job and she puts the time in - it tells on you eventually"). After years in industry, latterly as her own boss, another postholder had "problems trying to fit into the organisation". The postholder became frustrated by her routine tasks ("She wants to do something more creative. She constantly says she's not a technician but if the copier breaks down, who else is there? It's easy to call on her 'bread and butter' role, the other roles can

appear 'airy fairy'"). The pressure of several roles and of managing teachers, when not a teacher oneself, was noted ("Juggling all the issues in the rôle must be hard... you do one job well and neglect the others. That's a fact of life for managers. She is good at prioritising but she meets new problems of which she has little or no experience"). Acceptance by teachers, some of whom may have wanted his job, was perceived as problematic for one postholder ("I think he wondered if he'd be accepted by teachers. He took on particular responsibilities that one or two other members of staff wanted to do - and thought they could do").

All nine associate staff in this category reported some problems, although some early difficulties had been resolved. Thus, two stated that there were considerable pressures with their wide brief. For one, relations with older teaching colleagues who had applied for the post were initially tense but had improved. Moreover, the post had involved taking a considerable drop in salary. The second postholder stated "I don't think anyone really understood the original post I was appointed to. I didn't. It felt very ephemeral". A third postholder reported continuing grey areas around the post which left the her uncertain and sometimes uninformed ("If I do x or y do I need to report, explain, get permission for it? The links are there but it's not clear how open communication should be"). Another reported problems getting teachers to understand the income generating part of the role and in gaining their co-operation ("Because the educational process is ongoing, it's difficult to take people away to do things not within the teaching day"). The postholder did not have the authority to ensure co-operation.

One specialist postholder felt taken for granted by teachers and resented routine tasks "that restrict my creativity". Another stated that his post did not readily fit within any of the faculty areas which made him feel isolated from other staff. This respondent and the development manager each had roles which involved considerable external liaison and training. The training activity sometimes needed the input of teaching staff whom, the postholders felt, sometimes resented being drafted in to contribute to courses. One postholder expressed annoyance that resources and management support, promised at his appointment,

Problems and Criticisms

had not materialised. Another admitted her additional responsibilities exerted great pressure on her managerial skills and that she sometimes took the easy way out and did for herself tasks she knew she should have insisted were done by staff she line-managed.

Governors' views

Several governors/sponsors/trustees (13/18) commented on difficulties they had been aware of, or experienced directly, in the setting up of the colleges. It was claimed that LEA antagonism to the new secondary provision in their midst led to a lack of co-operation over the provision of information and to embargos on primary feeder schools providing information to parents whose sons or daughters were transferring to secondary schools. The two former LEA schools had both retained some of their staff, not all of whom were deemed to be up to their new challenge. Yet their unwillingness to leave their now better-resourced and recently-enhanced environment had resulted in an unusually static staff group. In other cases, the speed of start up of new colleges and the pressure to be ready on time had led to some acknowledged mistakes in initial appointments. Moreover, the new colleges often attracted more than their share of newly qualified staff (NQTs), who were drawn to the new institutions and not deterred by the five term year and longer mandatory hours which could create difficulties for older colleagues with families. Relatively numerous NQTs were not seen as presenting problems but they did take more management time ("You can't rely on their experience, you have to carry them along"). Furthermore, staff (both new and experienced) were under pressure to develop curriculum innovations and to meet the expectations of parents and community. All of these factors resulted in what one governor described as "a fairly demanding management exercise" for principals who, consequently, could be exposed to loneliness and stress.

6. Discussion.

Thirty one of the 32 posts attracted some critical comment. There were many instances of corroboration, where posts or postholders elicited similar views from more than one respondent. There were, as noted earlier, far fewer problems reported than benefits. Despite the assurances of confidentiality reported in Chapter Two, employees (particularly those on

time-limited contracts) may have been reticent about voicing criticisms which reflected adversely on their new institutions. Respondents at all levels were aware of the political controversies surrounding the setting up of CTCs and of the local hostility and political isolation some of them had endured. All innovations carry the risk of failure but people who have invested effort and commitment in an enterprise are likely to play down the difficulties encountered. Moreover, senior managers, particularly principals, were likely to be skilful at presenting in a positive light institutions of which they were uniformly proud. These factors may have resulted in an under- reporting of difficulties experienced with the 32 posts.

Relative significance of the problems

Some of the problems and criticisms reported by the respondents were relatively minor quibbles, perhaps from those with an axe to grind. Some problems appeared to be amenable to resolution (for example, the possible exploitation of postholders who were used inappropriately by teachers to 'babysit' students). Others were of potentially greater significance and indicated important lessons for those involved in introducing or implementing staffing changes (for example, the assignment of multiple and highly paid responsibilities which the postholders failed to fulfil).

Distinguishing the post from the postholder

The fourth section of the chapter, problems for the *postholder*, generated far more critical comments than did the other three sections. Although, in some cases the problems or criticisms were directed at the post, in other cases at the postholder, and sometimes at both, such distinctions were not always clear-cut. A 'hard-to-meet' brief could have a negative impact on the performance of an initially willing and committed incumbent, whilst an incompetent postholder could make a straightforward post appear unduly unworkable.

Problems with the posts

Some posts appeared to have been insufficiently thought-through at the planning stage. Problems (such as an unclear, fragmented or over-wide brief) which could have been foreseen were sometimes exacerbated by the continuing lack of clarity or by the confusion of 'grey

areas' around responsibilities. Problems were reported when expectations (sometimes unrealistic) were not met; when respondents did not know where the innovative posts fitted into the structure of the organisation; when promised support did not materialise; or when line-management arrangements were changed abruptly. If the purposes of the posts had not been communicated to teachers, their lack of understanding, perceptions of threats to their own roles, or resentment over what might have sounded exciting innovatory opportunities not available to them, contributed to their criticisms. Moreover, some posts were considered to be costly and to absorb resources which could have been used for additional teachers or Several posts, particularly in the 'management and curriculum support' learning materials. category, incorporated multiple responsibilities. In some cases the responsibilities of the posts did not have a logical coherence, had components which called for quite different skills or diverged over time. In other instances, even though there was a logic in bringing together two different strands, the resulting broad-ranging posts created excessive workloads and Some posts had such multiple and unrelated responsibilities that they undue pressure. appeared to have been used to 'mop up' jobs which could not easily be assigned elsewhere. Other posts, though welcomed initially by staff, had become problematic as the colleges expanded and the pressure of the posts had become such that the routine elements were squeezing out the innovative aspects.

Problems with, or for, the postholders

In several cases criticisms were directed towards, or problems acknowledged by, the postholders themselves. Many of the problems stemmed from the fact that postholders who did some teaching were not qualified teachers and so were considered (or considered themselves) to lack the educational experience and understanding of their colleagues or had a different concept to them of 'professionalism'. A lack of familiarity with the education culture, and specifically the CTC culture, or the pressure of conflicting philosophies and priorities, hindered innovation. Examples were cited of the curriculum suffering because priority was given to administration and of students being judged exclusively on their results, with no credit being given for effort. When business or industrial cultures assisted the postholders' performance and did not impinge (unduly) on teachers' roles there was less

Problems and Criticisms

likely to be conflict. Where, however, the two cultures clashed, there was a greater likelihood of problems.

The posts which combined teaching with other responsibilities presented difficulties for some of those carrying dual roles or for their qualified teacher colleagues. Thus, there were instances of postholders who were over-choosey about what they did or who favoured one aspect of their role to the detriment of the others - a situation which not only irritated colleagues but led to the inappropriate displacement of associate staff roles back to teachers. Related to this point were the over-ambitious expectations by some associate staff of a future role in the college. Problems also arose where managers held unrealistically high expectations of postholders - and the situation could easily change from opportunity, to exploitation of willing, but 'over-stretched', associate staff. As Drucker (1985) stated, "Entrepreneurs exploit innovation". The opportunity costs of such posts - balancing postholders' scarce skills against their lack of teacher training - will be discussed in the following chapter.

Problems with both post and postholder

In a minority of cases both the post and the postholder elicited criticisms. These were to do with a lack of clarity, unrealistic expectations, or the over-ambitious scope of the post, coupled with the disappointing performance, negative attitude, or lack of professionalism of the postholders, or tensions between the culture of the CTC and the culture of the workplace. The issue of different cultures and their implications for innovation is taken up in Chapter Eleven.

Which group of respondents voiced the most criticisms?

The most critical group of respondents were the associate staff themselves. This was in contrast to the LEA study, in which postholders were the least likely to be critical (Mortimore and Mortimore with Thomas, 1994). The explanation for this difference may stem from the fact that only two of the 32 postholders were women returning to the labour market after a child-rearing break and no postholder had been registered as unemployed immediately prior to taking up their post. The associate staff in the CTCs, therefore, had

less cause to be grateful to, or dependent upon, the college for their employment. (This is not to deny the enhanced career opportunities for postholders, noted in the previous chapter.) Moreover, in institutions which generally strove for parity of esteem for different groups of staff, it was possible that grievances were more likely to be perceived and to be aired. Alternatively, it could be that the respondents had not been asked for their views before or that they were loathe to voice criticisms of the CTCs when they were fully aware of the high public expectations placed on them - and the public opprobrium some had attracted. Associate staff reported problems in connection with lack of clarity of the job brief, lack of management support; teachers' resistance to, or ignorance of, their posts; the excessive pressure of the role; low pay and/or status; and feelings of exploitation over the *ad hoc* way in which associate staff could be used. 'Wearing two hats' (or more) could create problems of conflicting priorities, differing identities and undue pressures.

Line-managers were the next most vocal group, perhaps because they, in the first instance, had to cope with the problems. They, too, noted the difficulties associated with teacher resistance. Teachers drew attention to certain postholders who were used *de facto* as teachers but who were not qualified. They also acknowledged their own, or their colleagues', lack of understanding of the purpose of the posts and commented of the threats posed to their own roles by some of them. Senior managers, a smaller group, were less likely to report problems. They may not have been so aware of them or perhaps did not like to admit to there being difficulties in institutions to which they were highly committed and of which they were accustomed to presenting only a positive image.

Differences between 'greenfield' or 'evolved' CTCs

Some different problems emerged in the new 'greenfield' CTCs and in those which had evolved from former LEA schools. Teaching staff in the latter group had more adjustments to make, particularly if the postholder had held a different position in the previous school and the new post called for different ways of working. On the other hand, staff in the 'evolved' colleges frequently welcomed the input of new expertise, particularly technological, even if they sometimes had unrealistic expectations of what postholders could deliver.

Implications for policy and practice

There are several implications for policy and practice arising from these findings. First, the problems and criticisms reported in the chapter indicate the importance of planning the kind of changes to staffing policy described in this thesis and of communicating them to all who will be affected by them. Managers, at the planning stage, need to think through what they want from a post. This is especially important if it involves a change to the existing staff mix of competences and experience. Consideration also needs to be given to the components it is reasonable to combine in a single post and to how broad the resulting brief will be. Ideally, there should be mechanisms for discussing with teachers, in particular, what (and what not) it is reasonable to expect of the new posts and of their incumbents. If staff have some prior understanding of the potential advantages to themselves and to the college as a whole, of employing people with specific expertise, some of the difficulties reported in this chapter might be alleviated.

Second, a number of the difficulties reported here arose principally because some teachers were unhappy about unqualified staff taking on teaching roles. Ouston (1990) noted how teachers were loathe to lessen their control over what knowledge is transmitted and this seemed to underpin their reluctance to treat associate staff as truly equal. In the wake of attempts to use a 'Mums' army' in teaching roles, teachers' defence of their professional status can be seen as logical, even if it was not helpful to the college management or to individual associate staff.

Third, and mirroring the first point, associate staff need to be given as clear a brief as possible about the boundaries to, and the expectations of, their new roles. If the newcomers are to have a teaching role, it is particularly important that they receive some preparation so that they have a basis for understanding the norms of behaviour and discipline, of educational expectations, and of the educational culture they are entering.

Fourth, managers need to be aware of the risk that some of the innovative posts may be seen by staff as 'icing on the cake'. If a post is perceived as having no core, 'bread and butter'

Problems and Criticisms

responsibilities, teachers may see it as a very optional extra. Moreover, for those who have little autonomy over how and where they spend their time, the flexibility and the opportunities, inherent in some new posts, for going out and meeting new people in different contexts, can create envy. The attraction of new colleagues, and of their innovative roles, may wane with familiarity and staff may become less willing to co-operate with postholders whom they see as always making demands but who, seemingly, do not have to cope with the more everyday demands and responsibilities of an educational institution.

Fifth, staff roles tend to be fairly clear-cut but inflexible in 'traditional' schools (Hargreaves, 1995). In the CTCs there was considerable flexibility but with it there was also more ambiguity and, at times, more stress. Managers need to find ways of maximising the flexibility whilst minimising the stress. Some pointers emerge from this chapter; more are discussed in Chapter Nine. Managing new postholders (sometimes quite senior people) who were unused to the structures and accountabilities of schools; smoothing teachers' sensibilities over having to relinquish part of their work; and balancing conflicting priorities between teachers and associate staff, demand considerable skills of management and diplomacy in senior staff.

From the criticisms recorded in this chapter it might be assumed that several of the posts were failures of innovation. The difficulties noted, however, have to be set against the benefits reported in the previous chapter, the cost- effectiveness information which will be presented in the following one and the changes over time which will be discussed in Chapter Nine. It will be on the basis of all this information that the overall assessments will be made finally (in Chapter Eleven) of whether or not individual posts succeeded.

Chapter Eight

COST-EFFECTIVENESS OF THE INNOVATIVE POSTS

Introduction

It was noted in Chapter One that, when CTCs were being planned, the Government anticipated that the financial contributions from industrial sponsors would meet "all or a substantial part" of the capital costs (DES, 1986, p 8) and the Department of Education and Science would meet the current costs (at a per capita level comparable with LEA provision for maintained schools in similar catchment areas). Ministerial optimism, however, proved to be unfounded: private capital made up only 20 per cent of capital expenditure. Whitty, Edwards and Gewirtz (1993) have chronicled the reluctance of many 'blue chip' companies to fund initiatives they saw as potentially divisive, and the consequent burgeoning costs to Government of the CTC capital programme. The funding formula for current costs was also criticised, from opposing positions. Thus, Whitty et al noted that the formula was based on units of calculation for urban areas, although CTC catchment areas often included suburban and even rural districts. The authors also reported, however, the views of the CTC Trust that the formula underestimated start-up costs and the expense of maintaining extensive IT networks and of staffing the longer school day and year.

There seemed little doubt that the eight CTCs described in this thesis were well resourced, in comparison with their LEA neighbouring schools. In addition to the 20 per cent input to capital costs, several sponsors were reported to have made regular or one-off contributions, in cash or kind, to their particular college. Many respondents recognised their relatively favourable level of resources, although there were frequent expressions of the need to control costs. This chapter explores that awareness, in the context of answering the fourth research question: Were the posts cost-effective?

The potential contribution of cost-effectiveness analysis to educational effectiveness was discussed in Chapter One. In summary, in that chapter it was suggested that certain guiding

principles could assist the decision-making about what proportion of a school's budget should be allocated to teachers and what proportion to associate staff. These principles were:

- 'fitness for purpose' (asking whether people were doing the work for which they were best suited)
- a staff audit (reviewing the match between responsibilities and skills)
- reviewing the associated costs (including management time and other alternative opportunities which would have to be postponed or abandoned if money was spent on a particular post).

When CTCs were being established, the 'foundation' principals and their senior managers, with their industrial sponsors represented among the trustees and governors, were in a position to review traditional ways of working and to think laterally about which staff were employed and how they were deployed. Moreover, not only were CTCs relatively well resourced, they also had greater financial and employment autonomy and were able, if they wished, to pay enough to attract to some posts recruits from industry and commerce.

The eight colleges and the 32 posts provided an opportunity to identify the extent to which cost-effectiveness considerations featured in the planning of the 32 posts and to assess their individual cost-effectiveness. It should be noted that posts did not have to be working well on all fronts, nor did the postholder necessarily have to be considered happy in the post, for it to be judged cost-effective. The data presented in this chapter extend the material in the ESRC report in the following ways. The cost-effectiveness results summarised in that report were re-appraised in the light of further analyses of the phase two data. This resulted in adjustments to several of the initial evaluations made of the posts. The detailed 'cameos' of every post are presented for the first time in this thesis.

1

The term 'cameo', in the sense of 'a brief scene', seemed more appropriate than the term 'case study', with its emphasis on observational methods noted in Cohen and Mannion (1985).

The chapter has six sections.

- 1. Cost-effectiveness considerations as part of the planning process
- 2. Respondents' perceptions of the cost-effectiveness of the 32 posts
- 3. Researchers' assessments of the cost-effectiveness of ten management support posts
- 4. Researchers' assessments of the cost-effectiveness of thirteen curriculum support posts
- 5. Researchers' assessments of the cost-effectiveness of nine management and curriculum support posts
- 6. Discussion.

1. Cost-effectiveness considerations as a part of the planning process

The data in this section are drawn from interviews with senior managers, line-managers and postholders. Respondents were asked whether potential cost-effectiveness had been taken into account when posts were being planned and about what processes had been gone through in the course of planning the innovations. The results are shown in Tables 8.1 to 8.4.

Cost-effectiveness as a factor in the planning of posts

Table 8.1 shows that one only one third of respondents reported that potential cost-effectiveness was a factor in the planning discussions which preceded the decision to introduce the innovative posts. This group included almost half the senior managers and over a third of line-managers. Although a quarter of associate staff thought cost-effectiveness had been considered, they had not necessarily been involved in the planning.

Examination of the 'Yes' responses revealed the criteria used or the expectations held of the new posts. The replies indicated that the straightforward saving of money was paramount, since "staffing costs are all you can control". It was acknowledged, however, that not to have some posts could result in inefficiency, undue waste and, in the long term, further expense. For example, posts which could foster financial efficiency, although a cost on the staffing budget, were seen as potentially cost-effective ("We knew the right person would be a worthwhile investment").

Table 8.1 Was cost-effectiveness a factor in the planning of posts?

	SMT	Line-man.	Assoc. staff	Total	%
N	20	28	32	80	100
Yes	8	9	8	25	33.3
No	10	10	4	24	32
Other	1	0	2	3	4
Dk/kn	0	5	18	23	30.7
Total	19	24	32	75	100

N=80 Missing=5

The extent to which posts were expected to save teachers' time by taking tasks from them was another criterion since, in most cases, the postholder would be paid less than a teacher. Furthermore, some principals did not wish senior academic staff to be swamped with administration at the expense of their contact with students. The proposed costs of posts were also set against the potential for income generation by the postholders, for example, by 'selling' consultancies, training courses or other services to local industry or community users. Additional benefits, such as postholders being able to be used in different capacities across the college or doing some teaching or instructing, had been calculated ("The post could have been done cheaper but we would not get the teacher input").

Almost the same proportion of respondents (32%) did not think cost-effectiveness issues had featured to any great extent in the planning of new posts. Where this was the case, priority had often been given to finding (and paying) the right person for the job. Thus, in the case of an IT manager recruited from industry, the line-manager stated that "We knew we'd love to have him but we doubted we could afford him. The college raised the salary to get him. That's not unusual here". In other instances, managers believed that staffing decisions should be "needs based, not cost-driven". These colleges had the ability, if needed, to pay over the odds.

The responses coded as 'Other' included a postholder who reported that the post was initially costed for a qualified teacher with a predominantly curriculum role but that when he was appointed, from industry, his network responsibilities meant his costs came under different budget heads. The large number of responses in the 'Don't know' category came particularly from associate staff, most of whom would not have been in the colleges at the time the planning took place.

Components of the cost-effectiveness planning process

The 25 respondents who had replied in the affirmative to the planning question were asked about the extent to which the guiding principles of cost-effectiveness referred to earlier had featured in the planning process. Table 8.2 shows that the consideration of other *Options* was reported by 22 of the 25 respondents in this group.

Table 8.2 What did cost-effectiveness planning include?

	SMT	Line-man	Assoc. staff	Total	%
N	8	9	8	25	100
Options	8	9	5	22	35.5
Audit	8	9	3	20	32.3
Antic.ben	8	7	0	15	24.2
Deferred	3	2	0	5	8.0
Total	27	27	8	62	100

More than one response possible

Senior managers and line-managers reported they had considered (but rejected) having a joint teacher/bursar post; duplicating posts on a split site; buying in services or having several part-time postholders instead of (for example) a middle manager site/facilities post. Others had debated the best option for integrating management of the library (and the technical learning resources) with management of IT (and the computing resources) or - a common dilemma - whether to have two separate posts for the IT curriculum and network or, if one post, a teacher or a technical postholder. Over three quarters (20/25) reported an *audit of need* had been carried out. Senior managers stressed "the importance of looking at

structures and posts, not just people" and recalled that planning had to take account of negotiations with current staff over sharing or relinquishing responsibilities. Almost two thirds (15/25) recalled some discussion of anticipated benefits which referred to the potential positive effect of a new post on teachers' pedagogic activities and on the college mission. A minority of respondents reported the acknowledgement of opportunities deferred, noted the long-term investment aspects of some posts and the need to balance the budget.

2. Respondents' perceptions of the cost-effectiveness of the 32 posts

Were the 32 posts cost-effective?

The results are set out in Table 8.3.

Table 8.3 Were the innovative posts cost-effective?

	SMT	Line.man	Assoc. staff	Total	%
N	20	28	32	80	100
Yes	15	20	25	60	75.0
No	5	4	2	11	13.7
Other	0	2	2	4	5.0
D/kn	0	2	3	5	6.3
Total	20	28	32	80	100

Table 8.3 indicates that three quarters of respondents considered the posts to be cost-effective. Three quarters of postholders, who might be expected not to know much about the college finances (apart from their own salary), were of the opinion that the posts were cost-effective. Posts were reported not to be cost-effective when they had not been well thought-through initially and problems had arisen; when posts had grown so that the original innovative and cost-effective elements had become submerged in the routine; or where the postholder was deemed to be ineffectual or in other ways unsuitable for the post.

Responses coded as 'Other' were comments such as "efficiency was considered more than cost-effectiveness" or that cost-effectiveness was hard to quantify.

Cost-effectiveness of the Innovative Posts

Respondents who had answered 'Yes' were asked why they thought the posts were cost-effective.

Why were the posts cost-effective?

Table 8.4 has been compiled from the 60 'Yes' responses. The comments illustrate the difficulty respondents had in separating the post from the postholder, a problem noted in the preceding chapter and one which will be referred to again in the final assessments of the posts.

Postholders were rated as cost-effective primarily because of the *expertise*, frequently theirs alone, which they offered to the colleges. For example, expertise in media or engineering brought from industry; knowledge of marketing brought from the commercial or training worlds; skills in design or information storage and retrieval. Systems managers, who maintained sophisticated networks, were "very cost-effective because any down time is both a curriculum and an administrative loss".

Table 8.4 Why were the innovative posts cost-effective?

	SMT	Line-man	Assoc. staff	Total	% responses
N	15	20	25	60	100
AS expertise	9	5	6	20	22.2
AS teaches	7	5	6	18	20.0
Saves £	1	4	11	16	17.8
Saves time	2	5	5	12	13.3
Makes £	3	2	3	8	8.9
Supp.stud.	3	1	4	8	8.9
Other	2	4	2	8	8.9
Total	27	26	37	90*	100

^{*}More than one response possible

One fifth of respondents reported the cost-effectiveness of those postholders whose varied skills could be used flexibly and pragmatically, as needs arose, and who were able to *teach or*

instruct groups or classes. Even if, as in a minority of cases, the postholders were paid prorata for their teaching, the combination of their 'real world' experience and their teaching skills were deemed good value ("He brings in expertise from outside and keeps people's feet on the ground... the students know he has worked out there in industry...he is speaking with experience that the teacher doesn't have ...he is quite expensive but I still think it's cost-effective").

Often the postholders' expertise saved money (a benefit noted particularly by the associate staff themselves). Thus, systems managers' in-house maintenance skills saved on external contracts; premises-related postholders saved money "by competitive tendering, by negotiating contracts, and by negotiating the best value for money"; and postholders with design and printing skills did, in house, what otherwise would have been contracted out.

Also cost-effective were those posts whose responsibilities included tasks usually assigned to a senior teacher (finance, parent-liaison, examination organisation, health and safety) which not only saved money but also *saved teachers' time*, time which could be used for planning and pedagogy.

A small number of respondents reported how postholders *generated income* by providing external training courses, assessment and consultancy and by producing and selling curriculum and training materials. In a few cases, especially where income-generation was part of the role, the postholders raised a substantial part of their salaries. Postholders were reported as *supporting students* - in practical activities in studios and laboratories, by taking responsibility for tutor groups, by running after-school clubs and enrichment activities and, as qualified instructors, accompanying students on residential courses.

These findings suggest that the eight CTCs were developing four of the six attributes of cost-effectiveness noted by Thomas and Martin (1996) and referred to in Chapter One. *Audits* on the use of staff were reported; the innovative use of some associate staff allowed *increased delegation* of decisions; employing the expertise of financial postholders enabled accurate

information on *costs* to be collected. A *dialogue of accountability* was an explicit goal with posts which had an emphasis on cost-control and quality assurance.

3. Researchers' assessments of the cost-effectiveness of ten management support posts

The views reported in the preceding section were based on qualitative data from interviews carried out in the first phase of the research. The next three sections of this chapter present cost-effectiveness assessments based on both quantitative and qualitative data analysed, initially, by one of the ESRC grant-holders, Professor Thomas. The qualitative data were drawn from the financial information provided by the colleges on the form described in Chapter Two on methodology (see *Appendix Three*) and from the job descriptions for each post. These data were supplemented by the qualitative profiles of each post, prepared by the researcher, and also described in Chapter Two. On the basis of these two sets of information, summarised in a box for each post (see below), Professor Thomas commented on the cost-effectiveness of each post.

It will be seen from some boxes that several of the principals or senior managers who provided the information on the Financial Tables gave widely differing estimates of supervision time. Thomas interpreted the differences as indicating uncertainty at having to put a cost on an activity which might not previously have been costed. In some cases, posts he judged ostensibly to be cost-effective were rendered too expensive by such high reported supervision figures. Broadly speaking, Thomas took as his criterion of high supervision costs those which exceeded 7.5 per cent of the total annual cost of the post. Thomas judged half the posts to be cost-effective but came to no firm conclusion on the remaining half.

On the basis of more detailed information gained during research visits to the eight colleges and the interviews over a two year period, and in the light of more detailed analyses for this thesis, comments have been added in each case by the researcher who then made her own assessment of the cost-effectiveness of each post. In many cases the conclusions matched those of Thomas. Where they did not, evidence drawn from the triangulation of respondents' views or from the judgements of the researcher, is cited to support the differing view. The

researcher's assessments draw on the material on change over time which is presented in detail in Chapter Nine. The final assessment of the overall success (or otherwise) of each post, in which cost-effectiveness is a major, but not the sole, criterion, is made in Chapter Eleven. What began as an attempt simply to describe posts as cost-effective (or not) proved to be a more complex exercise. Taking account of all the information on posts known to the researcher resulted in posts being placed in one of the following six categories.

Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Category B: The post met a defined need and, with a change of postholder, was cost-effective.

Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

Category D: The post met a defined need but, as currently operated, was non cost-effective.

Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Category F: Doubts about post, postholder and cost-effectiveness.

This section, and the following two sections of the chapter, are devoted to the assignment of the 32 posts to one of these evaluation categories. The posts are discussed in the same three sub-groups as were used in Chapters Six and Seven and, within each sub-group, in the same order.

Post 1

Cost-effectiveness data		
(Figures include salary o	n-costs)	
Post		Source of funds:
Public relations		College budget
		Benefits:
Salary	18,200	This post concentrates in one post many
	İ	responsibilities for responding to requests from
Premises	250	prospective parents and students, as well as other
		members of the community. This benefit is
Equipment	59	accompanied by its low cost when set against the
		salaries of senior teachers who often undertake
Supervision*	1,560	these roles.
		* As reported but this high figure as compared
Total recurrent costs	20,069	with low figures elsewhere is indicative of
		uncertainty over this item.

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hours per week, the recurrent costs of this post are about £11.65 per hour. It is a post which reflects the stronger parent and client orientation required of schools and colleges in the current environment. The post provides a direct link with parents, clients and media as well as having responsibility for visitors and the organisation of events which draw in members of the community. This latter aspect includes income-generation activity which off-sets some of the financial costs of the post. Many of these tasks have often been done by deputy head teachers in many schools so that the cost gain with this post is considerable".

Thomas' judgement: The post was cost-effective.

The post's liaison responsibilities were particularly valuable during the early years of the college when CTCs were a new concept, prospective parents had many queries, and engendering positive external perceptions of the college by the potentially critical local community and media were afforded a high priority. The initial postholder was reportedly able to deal with between 70 and 80 per cent of parental queries, so saving teachers an appreciable amount of time. The television monitor in the reception area, updated each morning by the postholder, and the weekly newsletter for parents which she compiled,

Cost-effectiveness of the Innovative Posts

fostered communication within the college and between the college and parents. The marketing background of the first person to hold the post helped the development of the role in generating income from language classes for local authorities, industry and commerce.

By the second phase of the study a different person was in post. The language classes were in abeyance, although other income-generating activities were planned. The new postholder, still the first point of contact for parents and able to deal with most non-curriculum queries, continued to aid communication and to free teachers to concentrate on teaching. The public relations role with the community and the media and the liaison with sponsors continued and were still valued. Although not (yet) generating as much income as the original postholder, senior management recognised that this aspect should not operate to the detriment of the public relations and parent liaison roles, in which the post continued to represent value for money.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 2

Cost-effectiveness data		
(Figures include salary on	-costs)	
Post		Source of funds:
Site/ welfare		College budget
		Benefits:
Salary	17,160	The existing post has met short term needs
	uises 300	but these may be re-organised to create a
Premises		more conventional site supervision role.
Equipment	39	
Supervision*	1,820	
Total recurrent costs	19,319	* As reported but this high figure as compared with low figures elsewhere was indicative of uncertainty over this item.

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 40 hour week, the recurrent cost of this post is about £10.50 per hour. The post is an unusual combination of responsibility for the site and for some aspects of student welfare, duties which may be detached and made part of a separate student welfare post. The more narrowly defined post has common features with other appointments which have overall supervisory responsibility for the maintenance and improvement of the site. If it is less obviously innovative than other posts in this study, it may reflect the extent by which these posts have developed in the era of decentralised budget management".

Thomas' judgement: No firm conclusion.

The unusual range of duties had not been planned as a 'package' but had been drawn together only at the interview stage, somewhat serendipitously, in order to capitalise on the applicant's background. The post included line-management of several maintenance, catering and cleaning staff and oversight of contractors for building works (tasks which otherwise would have fallen to the line-manager); the recording of students who reported sick or injured (and accompanying them to hospital if necessary); and the marshalling of lunch queues. The post took time-consuming tasks from senior managers and teachers. However, the disparate

aspects of the dual role were placed under increasing strain as the college numbers grew, thus increasing the time needed to deal with longer queues and with more sick or injured students and broadening the scope of premises-related issues needing, but not always receiving, the prompt attention expected. The pressures of the different responsibilities of this post meant neither was dealt with satisfactorily. The separation of the two aspects of the post and the creation of a discrete student welfare post was being mooted by the postholder, and considered by management, even during the first round of visits.

By the second phase, the post had been divided and a full-time associate staff member had been appointed whose role was part welfare officer/counsellor and part administrative support. It was hoped that, by reducing the welfare demands on the postholder and his staff, there might be some savings of hours worked which could be set against the costs of the new post. The original dual postholder had become a full-time site/facilities manager. The new, more narrowly defined, role was intended to ensure the building services were run as efficiently as the line-manager and, in turn, his managers wished. The postholder was expected to devote more time to assessing building needs, managing his staff and ensuring the high profile, business-like premises were maintained to the exacting standards of the governors. Some of the innovative features of the post, however, had been lost. What had initially appeared to be an opportunistic, and potentially cost-effective, linking of the postholder's life experience with two somewhat unrelated needs of the new college had not only proved unpopular with the holder of the *original dual post*, who had felt under great pressure, but had been unsatisfactory for the college.

Researcher's judgement - Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Post 3

Cost-effectiveness data (Figures include salary on-costs)			
Post		Source of funds:	
Director of finance/		College budget	
administration			
		Benefits:	
Salary	33,800	The principal benefits of this post lie in the	
		combination of expertise and skills brought by the	
Premises	300	postholder. Its combination of financial,	
		administrative and personnel responsibilities	
Equipment	59	provides a basis for a college-wide view of	
		human and physical resources.	
Supervision*	4,940		
		* As reported but this high figure, as compared	
Total recurrent costs	39,099	with low figures elsewhere, is indicative of	
		uncertainty over this item.	

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a 40 hour week (no hours are specified in the contract), the recurrent cost of this post is about £21.25 per hour. The responsibilities include senior responsibility for financial, administrative and personnel management. It is in this respect that the post reflects an innovative approach to these management responsibilities within an 11-18 years educational institution. It is paid at a level commensurate with senior responsibilities in schools and colleges and the scope for cost-effectiveness must lie in the distinctive expertise brought to the post". Thomas was equivocal about the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

The postholder was an accountant with considerable financial expertise. Senior managers benefitted from his expert advice and from being able to delegate, with confidence, the complex financial issues surrounding a budget of £11 million (and rising). The financial expertise of the postholder contributed to some efficiency savings on energy costs and a planned maintenance programme. The post provided trustees and senior managers with upto-date, accurate financial information for planning purposes. Senior managers were relieved

of budget preparation, payroll tasks, line-management of most associate staff and oversight of the college's catering and income-generating activities.

The post had not changed significantly by the second phase but the postholder had assumed responsibility for health and safety matters and, with students, was developing a litter policy. Taking account of all the benefits of having financial expertise on site, despite the high reported supervision costs, the post appeared to continue to give good value for money throughout the duration of the study.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 4

Cost-effectiveness data (Figures include salary on-costs)		
Post		Source of funds:
Parent/ college relations		College budget
		Benefits:
Salary	£12,012	The postholder fulfils a wide and mixed
		range of responsibilities drawing upon both
Premises	100	quite high and relatively low level skills.
Equipment	50	
Supervision	50	
Total recurrent costs	12,212	

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent costs of this post are about £7.10 per hour. The post requires a range of activity from responsibility for all matters relating to SIMS and the provision of information for planning purposes to assisting in sorting the mail. Work undertaken on parent liaison and in monitoring attendance helps to reduce demands made upon teachers. This mixture

Cost-effectiveness of the Innovative Posts

of responsibilities is undertaken at comparatively low cost and, bearing in mind some of the demands made upon the postholder, the cost-effectiveness of the post bears comparison with those elsewhere".

Thomas' judgement: The post was cost effective.

The postholder's liaison work with parents reduced the demands made upon teachers and helped diffuse potentially difficult situations between staff and parents. Parents had a known and available person whom they could contact. Patterns of (in)attendance could be identified by the postholder and acted upon promptly by tutors. Student attendance and time-keeping rates were high. The post was at least partly responsible for the very low truancy rate.

By the second year, however, the expansion of college numbers (including the first post-16 cohort) and the related growth in administrative data needing attention, were perceived to be placing the original postholder under increasing and undue strain. The postholder had trained a member of the administrative staff to take over the parent/college relations role as he gradually relinquished it in order to take on greater responsibility for planning information and for student records. There had been no question of losing the post, which continued at much the same salary level and was still credited with the maintenance of low truancy rates and good parent relations, in a local authority which had been critical of the CTC.

Researcher's judgement - Category B: The post met a defined need and, with a change of postholder, was cost-effective.

Post 5

Cost-effectiveness data		
(Figures include salary on-c	osts)	
Post		Source of funds:
Site/buyer		College budget
		Benefits:
Salary	15,548	Combines in one person oversight for the
		premises and certain purchasing functions in that
Premises	208	area. This contributes to better informed
		financial planning for the Senior Management
Equipment	416	Team.
Supervision	4,576	
Total recurrent costs	20,748	

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is £12.90 per hour. The principal responsibilities are the security and maintenance of the buildings and, through co-ordination of purchasing, achievement of better value for money. The post is innovative in the sense that it represents the college's response to its responsibility for the whole of the institution and is not jointly shared with the LEA, as is the case with locally managed schools". Thomas did not, however, make a clear judgement about the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

The post incorporated many of the site responsibilities which, given the CTCs' independence from the local authority, would otherwise have had to be carried out by a senior manager. Moreover, the postholder's experience enabled her to negotiate competitive tenders for building and supplies. The postholder's operation of the centralised buying system for the split-site college meant that teachers were saved from spending valuable time searching for 'best buys' and the line-manager received up-to-date information on budgets, which contributed to his efficient monitoring of expenditure and to the financial planning of the senior management team.

By the second year the college had opened a college/community centre. This was separately staffed but the postholder was the bar licence-holder. The postholder's network of contacts with local tradespeople had expanded. At the salary level reported the post appeared to represent value for money. However, this view was modified by the high supervision costs reported.

Researcher's judgement - Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

Post 6

Cost-effectiveness data		
(Figures include salary o	m-costs)	
Post		Source of funds:
Systems manager		College budget
		Benefits:
Salary	21,476	Combines responsibility for a range of IT
		functions in one post.
Premises	416	
Equipment	416	
Supervision*	10,972	
Total recurrent costs	33,280	* As reported and indicative of the difficulty of making accurate judgements in this area.

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent cost of this post is £19.30 per hour. It is an innovative post in the scope of its responsibilities in the college, combining responsibilities for day to day system management with external liaison, user support and management of IT technicians. It is the type of post that can be expected to develop rapidly as IT systems become more extensive in schools. An overall judgement of cost-effectiveness must depend in part on the scale of time identified as supervision by the line manager. This is high and represents the difficulties of many colleges in assessing this time reliably".

Thomas' judgement: The cost-effectiveness of the post was questionable.

Teachers, students and the administration of the college benefitted from a well-maintained and sophisticated network of over 300 machines. The (ex-commerce) postholder's business acumen resulted in the cost-effective use of college resources and his skills and those of the technicians saved time and a considerable amount of money (estimated to be in the region of £30,000) in maintenance.

By the second phase the postholder's administrative support role had increased, with the introduction of a computerised registration system, optical mark readers (OMRs) and computerised comment banks for Records of Achievement and reports. The postholder had started an after-school computer club. Although relatively well paid, the post still appeared to be cost-effective in the expertise and support it offered across the college and the large sum estimated to be saved in maintenance. This view was modified, however, by the estimated high supervision costs which inflated the total figures.

Researcher's judgement - Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

Post 7

Cost-effectiveness data			
(Figures include salary on-c	(Figures include salary on-costs)		
Post		Source of funds:	
Personnel		College budget	
		Benefits:	
Salary	21,022	The assessment of its benefit for the college is	
		that it combines key personnel functions at a	
Premises	434	level that is close to the vice-principal.	
Equipment	260		
Supervision	1,560		
Total recurrent costs	23,276		

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £14.50 per hour. Responsibilities include administrative duties with respect to the recruitment and employment of all staff and the maintenance of their personal record. The post holder also acts as Personal Assistant to a Vice Principal. An assessment of its cost-effectiveness must depend in part upon salaries paid to comparable posts elsewhere". There were no comparable posts in the study and Thomas did not reach a clear assessment.

Thomas' judgement: No firm conclusion.

The post carried responsibilities for administrative duties (formerly LEA-held) and for updating management on employment law and for the monthly input of payroll information to the auditors who dealt with salaries. The postholder also gave part-time PA assistance to a Vice-Principal.

By the second year structural changes in the organisation of the college meant that some aspects of the postholder's role had become more fragmented, others had become more unified. Overall, the most significant change was the loss of the part-time PA role. There were no comparable posts in the study on which to base an assessment of cost-effectiveness. However, the personnel benefits (more obvious when the college was starting up) had lessened as the staff group stabilised, the formal PA function had gone but the salary level remained relatively high. The changing circumstances raised doubts about whether this full-time post represented good value for money.

Researcher's judgement - Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Post 8

Cost-effectiveness data		
(Figures include salary on-c	osts)	
Post		Source of funds:
Site/facilities manager		College budget
		Benefits:
Salary	22,587	Integrates responsibility for the premises in one
		postholder.
Premises	434	
Equipment	260	
Supervision	1,820	
Total recurrent costs	25,101	

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £15.60 per hour. The post includes responsibility for the care, maintenance and security of the buildings as well as the site as a whole, a combination of activities which would appear to be cost-effective. Its innovative nature is a consequence of the independence of the college and the need to ensure that all facilities are properly maintained and developed".

Thomas' judgement: The post was cost-effective.

The senior managers and the line-manager were relieved of the management of the split-site and the line-management of premises and catering staff. The postholder was credited with negotiating good deals with suppliers and builders.

The post had not changed by the second phase although by then it was claimed that the postholder had reduced heating bills by 30 per cent and was developing income-generating use of the premises. Despite the relatively high costs of this post, therefore, the combination of activities and responsibilities over, in effect, three sites, appeared to be cost-effective.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 9

Cost-effectiveness data (Figures include salary on-costs)		
Post	n-cosis)	Source of funds:
Systems manager		College budget
		Benefits:
Salary	20,816	Integrates responsibility for IT systems in one
		person, providing the advantages of an overview
Premises	434	of administrative and educational systems.
Equipment	260	
Supervision	1,300	
Total recurrent costs	22,810	

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £14.20 per hour. This post has responsibility for all IT systems in the college and has a job description which includes research and development. It manifests the increasing significance of IT in education and is indicative of a trend towards these posts". However, Thomas gave no clear view as to the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

Few staff (teaching or administrative) in the college were IT-literate so most of them benefitted from the support and training provided by the postholder. In addition, the head of IT was able to delegate the network management and the (more economic) in-house maintenance. The post was paid slightly less than Post 6 and the supervision costs were far lower.

By the second phase the line-management had changed. The new manager had instituted a computer Help Desk and a system of logging and prioritising requests for the postholder's help. If the network came to a standstill there was an immediate knock-on effect on both

teaching and management and it was reported that the postholder 'held the skills and the screwdrivers to manage the ship'. Given the shortage of IT skills among the staff and the centrality of IT to CTCs, this post was crucial if the college were to achieve its mission.

Researcher's judgement -Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 10

Cost-effectiveness data		
(Figures include salary on-c	osts)	
Post		Source of funds:
Site/facilities manager		College budget
		Benefits:
Salary	17,028	The post combines a range of responsibilities for
		maintenance and use of sites and buildings and at
Premises	268	a lower level of salary than for some of those
		duties carried out elsewhere.
Equipment*	2,697	
Supervision	400	
		* Equipment costs spread over five years
Total recurrent costs	20,393	

Cost-effectiveness summary

Thomas calculated that "Distributed over the 46 week year and a contracted 37.5 hour week, the recurrent cost of this post is about £11.82 per hour. Its role is to undertake general responsibility for the security and care of the buildings, sites and immediate grounds, lettings and to carry out maintenance work of a day to day nature. The post gives an overview of the premises and has line responsibility for six staff, bringing specialist expertise to some responsibilities which are undertaken by deputy heads in some schools and at a salary level which is substantially lower".

Thomas' judgement: The post was cost-effective.

The post not only provided management with an overview of the premises but the amount of building alteration, decorating and maintenance that could be done in-house by the

postholder and his team saved the college money. The line-manager was able to delegate premises matters (to someone with acknowledged greater technical competence) and the line-management responsibility for 22 part-time and six full-time staff. The postholder, in addition to his major role, contributed to some mainstream curriculum science projects and to Enrichment activities from which students benefitted.

By the second round of visits the senior management structure had altered, and the subsequent modifications to the policy on the use of associate staff had some knock-on effects for both the postholder and the line-manager. There were also some tensions over the lengthening "chain of command" but these did not affect the cost-effectiveness of the post.

Researcher's judgement -Category A: The post met a defined need, was held by competent postholder and was cost-effective.

In summary so far, of the ten posts in this category, Thomas considered only four could be deemed cost-effective, one was questionably so and no firm conclusions were reached in five cases. On the basis of the researcher's greater knowledge of the colleges and of the posts over an extended period, five were judged unequivocally to be cost-effective and were assigned to Category A. The other five were dispersed among four of the other categories. In four cases Thomas and the researcher both agreed that posts were cost-effective. In the other cases, where Thomas was equivocal, the researcher placed the post in one of the other categories, for the reasons given.

4. Researchers' assessments of the cost-effectiveness of thirteen curriculum support posts

Post 11

Cost-effectiveness data		
(Figures include salary on-costs)		
Post		Source of funds:
Information resources		College budget
manager		
		Benefits:
Salary	23,400	Combines library and learning resources
		responsibilities and, in this way, is consistent with
Premises	500	a more general trend.
Equipment	97	
Supervision*	1,820	
		* As reported but this high figure as compared
Total recurrent costs	25,817	with low figures elsewhere is indicative of
		uncertainty over this item.

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent cost of this post is £14.97 per hour. It provides a means whereby the college can co-ordinate its library and learning resources functions in ways which are required to meet the needs of the curriculum, staff and students. The post is consistent with a more general trend towards combining library and learning resources and, in this way, is a cost-effective approach. But does not obviously reflect moves towards an information services policy incorporating the capacities of IT systems'.

Thomas' judgement: The post was cost-effective.

Staff benefitted from the training in information management provided by the postholder (a chartered librarian). Students benefitted from information retrieval skills courses, devised and taught by the postholder, and from the cross-curriculum work she facilitated.

By the second phase the same benefits were in place and the role had widened to include the undertaking of on-line searches for students; the on-the-job training of a student librarian and the ordering and cataloguing of all learning resources except IT software. This latter role saved additional teacher time. A newly-built extension to the library would increase the responsibilities of the postholder. The post continued to provide value for money.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 12

Cost-effectiveness data				
(Figures include salary o	(Figures include salary on-costs)			
Post		Source of funds:		
Teacher/technician		College budget		
		Benefits:		
Salary	17,600	The combination of skills provided flexibility in		
		staff use and also meant that work on one area of		
Premises	nil	activity was informed by insights from other		
		areas. This flexibility benefits the college and		
Equipment	nil	provides diversity for the individual.		
Supervision	100			
Total recurrent costs	17,700			

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent costs of this post are about £10.30 per hour. The combination of teaching and technician skills provides the college, informed by the mix of qualifications, with insights into how work in these posts can be developed to complement and support each other. The potential for cost-effectiveness here is enhanced by the flexibility arising from the combined roles, in terms of staff co-working and the provision of support for students".

Thomas' judgement: The post was cost-effective.

The postholder was a qualified teacher but did not want the responsibility of a teaching post.

The college, in its early days, was looking for flexibility in staff: the postholder fitted the dual role of technician (primarily) and teacher (when necessary). Not only did the post provide a varied and interesting role for the individual, but teachers and students benefitted from the flexibility of the postholder, arising from his qualifications and creative skills and his preference for the (lower paid) technician role.

The situation had changed somewhat by the second phase. Growth in student numbers and new workshops, plus new responsibilities as Health and Safety officer, meant that the postholder was stretched to the limit to cope with even the routine technician duties. Difficulties were compounded by the postholder having to stand in for absent teachers at registration and tutorial periods, which could mean up to four hours a week less workshop time. Moreover, new technology teachers in the department were newly qualified and unfamiliar with the ethos of the college regarding the broad use of associate staff. They did not appreciate the potential of the postholder so, unlike other colleagues, did not involve him in planning but tended to see him as someone who supplied the stock and cleaned up after students in the workshops.

The cost-effective strengths of the postholder were in the specific skills which he used with groups of students in lessons planned with teachers ("In the past...he had almost an apprentice role...I planned and he helped to deliver...his skills and talents were better used then".) The changing balance in the demands made on the postholder meant that, latterly, those strengths were hardly used. Even when they were, teachers sometimes had to resort to carrying out technician-type tasks for themselves because the postholder was engaged in teaching. Although the postholder was highly praised and valued, the way the post had evolved had reduced its cost-effectiveness.

Researcher's judgement - Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Post 13

Cost-effectiveness data		
(Figures include salary or	n-costs)	
Post		Source of funds:
Learning liaison		College budget
		Benefits:
Salary	36,036	The post combines responsibilities for: cross-
		curricular development; the promotion of the
Premises	312	college; external liaison; and management of
		learning and information resources.
Equipment	0	
Supervision	2,912	
Total recurrent costs	39,260	

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is £22.80 per hour. This is a senior post with responsibilities for: cross-curricular development; the promotion of the college; external liaison; and management of learning and information resources. It represents an example of ways in which decentralisation of responsibility for staffing is leading to a re-thinking of the duties linked to specific posts". Thomas, however, remained equivocal about the cost effectiveness of the post.

Thomas' judgement: No firm conclusion.

Initially, teachers benefitted from the postholder's contacts with industry. Students benefitted from smoother progression from primary schools; from limited European work experience and from some cross-sector and cross-curriculum events - all activities deemed central to the mission of this CTC, by the SMT and the governors. The post's relatively high status and high profile were thought to contribute to the initially positive responses from industry.

By the second phase, several aspects of the post had all failed to meet expectations. This was frustrating for managers and disappointing for the postholder. Hard-pressed teachers tended

to view the post, with little teaching and an enviable amount of time for external liaison, as peripheral ("the icing on the cake"). Management disappointment at the lack of innovation, coupled with financial and staffing pressures in the college, had resulted in the postholder spending less time in her innovative role and more time teaching subjects in which she was not principally qualified - a situation not good for students and resented as a demotion by the postholder. Moreover, such activity did not warrant the salary of a senior member of staff. The cost and operation of the post were queried by senior managers ("We are paying a high price for a small input with not much recognition internally or externally"). The post lacked clarity and the changes to it did not appear to have been thought through.

Researcher's judgement - Category F: Doubts about post, postholder and cost-effectiveness.

Post 14

Cost-effectiveness data			
(Figures include salary on-costs)			
Post		Source of funds:	
Senior science technician		College budget	
		Benefits:	
Salary	15,912	Overall responsibility for the work of science	
		technicians in the college. The time of the line	
Premises	Uses prep. room	manager is saved by the postholder's work on	
		stock control, budget monitoring and the	
Equipment	312	management and training of six technicians.	
Supervision	3,588		
Total recurrent costs	19,812		

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is £12.30 per hour. The post is linked directly to the Science

Department in the college and includes responsibilities traditionally associated with the role of a senior science technician. In the context of the independence of the college, responsibilities include dealing with outside contractors. In addition, there are contributions made to the preparation of the Departmental Development Plan and to planning A-level experiments. In some ways, the post does not have many obviously innovative features and its overall cost-effectiveness must be assessed by comparison with similar posts elsewhere". Thomas did not comment on the high reported supervision costs and remained equivocal about the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

The post had developed in accordance with the postholder's known capabilities and the changing situation in the former school, as it assumed CTC status. Thus, the postholder, as well as contributing to the departmental planning, had a research and development role in the use of IT in the science curriculum.

The post had not changed substantively by the second phase. The three heads of sciences and the overall head of department continued to benefit from the postholder's input to team discussions of chemistry innovations and their resource implications. The postholder's streamlining of the stores for ten laboratories, according to the needs of the science teaching modules, saved them time and made their teaching easier to organise. Teachers, particularly those newly qualified, learned from the postholder's experience and knowledge of dangerous gases and alternative substances or experiments. All students gained from the postholder's devising of experiments and A-level candidates benefitted from advice on their individual practical projects. Overall, the postholder had an impact on the quality of science teaching. In comparison with the other science technician posts, which are discussed below, the salary costs were marginally less than one and much less than the other. But the sum reported for supervision was high, pushing up the overall figure to an extent which raised doubts about cost-effectiveness.

Researcher's judgement - Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

Post 15

Cost-effectiveness data				
(Figures include salary o	(Figures include salary on-costs)			
Post		Source of funds:		
Senior co-ordinating		College budget		
technician				
		Benefits:		
Salary	20,920	Responsibility for staff development and		
		training for all technicians is combined and		
Premises	434	represents a more rounded view of the needs		
		of support staff and of cross-college needs.		
Equipment	None			
Supervision	1,300			
Total recurrent costs	22,654			

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £14.10 per hour. Based in the Science Department, the postholder's responsibility extends to all departments and he heads a team of five other technicians. This line-management responsibility includes staff development and training for the team and, as with other posts, represents the way institutions are taking a more rounded view of support staff and how they are to be managed". Thomas remained equivocal about the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

Initially, teachers in several departments in this CTC benefitted from technician support which freed them for teaching and facilitated the college's drive towards resource-based learning. Moreover, a greater variety of practical activities were able to be offered to students in subjects other than science.

By the second phase some reversion to former practices was becoming apparent ("The college has moved back in the direction from which we came"): all but two technicians were back in their original departments. The reversal of the innovation was attributable to several factors. Some managers considered the technicians' roles had become too generalist and their specialist knowledge was being wasted. Some heads of departments had baulked at having to negotiate technician support with a technician - albeit a senior one. Others had resisted the cross-departmental approach. The technicians' lack of expertise in the different areas of need (in the arts and humanities departments) had raised doubts about the innovation - and the postholder's co-ordinating role in it. Restructuring had given the postholder a new line-manager who had not been involved in the initial change of direction. In addition, this was the most highly paid of the similar posts in the study.

Researcher's judgement -Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Post 16

Cost-effectiveness data		
(Figures include salary on-costs)		
Post		Source of funds:
Technician/tutor		College budget
		Benefits:
Salary	14,144	The post combines teaching and technician
		duties enabling the college to match
Premises	No return	resources to needs as it judges appropriate.
		Engineering skills brought from the
Equipment	No return	manufacturing sector complement those of
	-	teachers at the college.
Supervision	1,040	
•		
Total recurrent costs	15,184	

Thomas calculated that "Distributed over a 40 week student year and a reported 40 hour week, the recurrent cost of this post is about £9.50 per hour. This post combines technician and teaching duties, the postholder providing general technician support as well as a teaching programme. In this context, the teaching is provided at comparatively low cost and the post illustrates the job flexibility which is now possible within these colleges".

Thomas' judgement: The post was cost-effective.

Managers benefitted from the flexibility of the postholder. Teachers benefitted from her technician support and teaching input. Skills acquired in the manufacturing sector complemented those of teachers and, reportedly, were appreciated by students. The college supported the postholder in studying part-time for a degree which she planned to follow with a PGCE. In this way the college was providing the postholder with a progression route to qualified teacher status (QTS). The modest salary was accepted by the postholder because, for two or so years, she had bridging redundancy pay from a previous post in industry. This would cease, however, at about the time the postholder expected to graduate, when she expected to be paid accordingly by the CTC.

Since this post highlighted some of the key issues surrounding the opportunistic use of associate staff, it is discussed in some detail. By the second phase the postholder had graduated. She had embarked on a PGCE, with a mentor on the college staff. She did more teaching and her job title had changed. The redundancy payments had ceased and she had been given a salary increase in recognition of her degree and teaching input.

Tensions had emerged, however, between the management and the postholder, over the latter's future. These were coming to a head as the postholder drew near to achieving her goal of QTS and was hoping for a permanent teaching post in the college. The CTC had gained from the postholder bringing a different expertise into the classroom ("I get paid substantially less than a qualified teacher...they've got me on the cheap...I'm passing on knowledge and experience to students") and the dual role had provided welcome flexibility for the department, particularly in the early days of the college. However, the postholder's raised expectations of a teaching career had increased her dissatisfaction with, and decreased her efficiency in, the technician role, to the extent that the college had employed a new

technician who was not involved in teaching. It was reported that the technical needs of department were now met more satisfactorily by a technician who was happy with that unambiguous role. However, the timetable constraints and staff availability for the year dictated that, if the postholder were to be allowed to drop the technician role, she had to do more teaching. Consequently, she had a full teaching timetable and was responsible for a tutor group. This suited the postholder but was not wholly satisfactory for the department. ("That was a decision we made not because. ..we could not afford to have such a good teacher playing the technician role - but the other way round. She was becoming not such a good technician. But we have reservations about her teaching".)

In theory, the post could be cost-effective, particularly if people deemed suitable were allowed to grow into that role over time ("You could have a technician who is...paid less than a qualified teacher, but fulfilling a very supportive role with the students. If the technician then evolves into a technician/ tutor...moulded to the department's and the institution's requirements... it's a way to get the most productive staff for the least money"). There would always be the risk that aspirations would be raised that could not be met. In this case, the postholder's industrial workplace habits, her perceived inflexibility and her ambition had come to clash with management approaches which used associate staff skills in an ad hoc manner, as it suited the department, without sufficiently thinking through the implications of dealing with the ambition they had helped to nurture. The result was that an initially cost-effective technician/tutor post had become a de facto teaching post, held by someone not yet qualified and whose performance was questioned. The college might have been better served by a younger, more flexible technology teacher, albeit with less industrial experience. The cost-effectiveness of the original post had been reduced as its dual nature had lessened.

Researcher's judgement - Category F: Doubts about post, postholder and costeffectiveness.

Post 17

Cost-effectiveness data		
(Figures include salary on-	costs)	
Post		Source of funds:
Curriculum support		College budget
		Benefits:
Salary	8,944	Provides preparatory support for teachers in Art
		and Design as well as support in class. It has
Premises	No return	enriched classroom activities and has reduced
		some time demands on the line-manager.
Equipment	No return	
Supervision	1,040	
Total recurrent costs	9,984	

Thomas calculated that "Distributed over a 46 week year and a contracted 40 hour week, the recurrent cost of this post is about £5.40 per hour. This post holder provides support in the classroom as well as in the preparation of materials for teachers to use in class. It represents a good example of the use institutions make of decentralised management and, at the salary level reported, appears to be low cost for quite high level and flexible support". Thomas' judgement: The post was cost-effective.

This post exemplified the freedom of CTCs to respond to unsolicited applications and to use staff with specific skills in a quasi-teaching role. Management benefitted, initially, from the postholder's skill in compiling and maintaining an administrative data base. The line-manager was relieved of many routine tasks and benefitted from the postholder's flexibility and willingness to move into an area when needed and then resume other activities, thus saving money on supply cover. Teachers and students benefitted from the postholder's input to mainstream classes (in design) and to enrichment activities (in photography and IT). The postholder, in the main, welcomed the variety of the post, was also aware of the low pay and the scope for exploitation ("They would have to have several part-time people to do what

I do in several different specialisms").

By the second round of visits the postholder had embarked on a part-time degree course, with a view eventually to qualifying as a teacher. Changes to the line-manager's responsibilities had the knock-on effect of increasing the responsibilities of the post. The postholder had handed over the data base in order to take on a half-time teaching timetable in the creative arts department ("The minute I looked like I wanted to teach I was given full responsibility for ten teaching groups...I'm treated the same as any other teacher, lesson preparation, reports... I've now got a tutor group...I invigilate...I do full cover...and I still do a heck of a lot of technician duties".) The teaching groups varied from a whole class of year 7 students, to a small group of students from GCSE examination groups, jointly-taught with a teacher. In recognition of the increased responsibilities, the postholder's salary had been raised. Even so, it was reported that the postholder "certainly gives us value for money" and "is worth twice what we pay".

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 18

Cost-effectiveness data		
(Figures include salary on-	costs)	
Post		Source of funds:
Broadcaster/tutor		College budget
		Benefits:
Salary	17,108	In its combination of radio presenter and teacher,
		the postholder is an unusual role combination and
Premises	No return	shows the college using its abilities as an
		employer to match resources to its assessment of
Equipment	No return	need.
Supervision	2,080	
Total recurrent costs	19,188	

Thomas calculated that "Distributed over a 40 week student year and a reported 40 hour week, the recurrent cost of this post is about £12.00 per hour. The postholder is the presenter of the college radio station and is also a tutor. An unusual combination of roles illustrates the ability of colleges to use their employer position to match skills to their assessment of need. In this respect it shows the potential for delegated financial management leading to the cost-effective use of staff".

Thomas' judgement: The post was cost-effective.

The postholder was the presenter of a local radio programme transmitted daily from the college radio station and a part-time tutor in media studies. The CTC paid the salary: the radio station provided a car. Initially, the college benefitted (albeit indirectly, since students were rarely involved) from the PR function served by the radio broadcasts which brought the CTC to the attention of local listeners every morning and by the opportunities the post offered staff and students for cross-curriculum work. Teachers and students benefitted from the postholder's input to teaching media options (but not core units) on BTEC courses and to extension courses.

By the second phase the situation had altered considerably. The original postholder had left the college and the radio station. The replacement, who also had broadcasting experience, had taken on the teaching of some BTEC media options and , initially, had continued the daily broadcasts. Shortly afterwards, changes to the personnel, funding and sponsorship of the local radio station led to the severance of its relationship with the college. The new postholder remained on the college staff but the daily broadcasts had ceased and, with them, the PR spin-off. The postholder taught BTEC modules (but fewer than the predecessor); ran video production courses for the enhancement studies programme; and had been given some routine reprographic responsibilities as a result of the re-organisation of the support services. A new working arrangement between the college and the radio station was being discussed but nothing had materialised. Changes apparent by the second visit - the reduction in scope of the post, coupled with the under-use of the postholder's technical skills and the rather *ad hoc* developments in the routine reprographic role - raised doubts about whether the post provided value for money.

Researcher's judgement - Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Post 19

Cost-effectiveness data				
(Figures include salary or	(Figures include salary on-costs)			
Post		Source of funds:		
Information resources		College budget		
manager				
		Benefits:		
Salary	20,471	Provides a co-ordinating function for		
		information services in the college. Also		
Premises	None	provides training in information storage and		
		retrieval for students, as well as freeing		
Equipment	100	teacher time from this for other tasks.		
Supervision	None			
-				
Total recurrent costs	20,571			

Thomas calculated that "Distributed over a 46 week year and a contracted 37 hour week, the recurrent cost of this post is about £12.10 per hour. The postholder has overall responsibility for running the Information Centre which includes two librarians and three other staff. It provides a means whereby several key information services responsibilities can be managed together, a development which can be cost-effective in terms of staff time and the use of physical resources".

Thomas' judgement: The post was cost-effective.

Teachers benefitted from bookable, timetabled slots for groups or classes working on projects and were freed from introducing students to information skills. The IT manager had the postholder's assistance when introducing students to the Internet. Year 7 students benefitted from the learning packages the postholder (a chartered librarian) devised and from courses taught *in situ* on information storage and retrieval. All year groups benefitted from timetabled library sessions. The central holding of resources reduced duplication and was economical.

The only significant change to the post by the second phase was the postholder's overview of the introduction of a multi-purpose student resource card, a 'swipe card' which not only covered library loans but entitled students to a given amount of photocopying each term (rechargeable at the students' own expense). The system was to be extended for use with the students' printers (currently free), in order to encourage them to be more discerning and economical. The postholder had widened the role by supporting students working with CD ROMs and interactive video. Although paying a qualified librarian cost the college more than, for example, paying a library allowance to a teacher, the benefits seemed to justify the expenditure.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 20

Cost-effectiveness data			
(Figures include salary on-c	(Figures include salary on-costs)		
Post		Source of funds:	
Video/film technician		College funds	
		Benefits:	
Salary	15,759	Enables the college to provide direct support for	
		students and staff to become more skilled in	
Premises	No return	various aspects of production. It includes	
		teaching by non-teacher.	
Equipment	No return		
Supervision	No return		
Total recurrent costs	15,759		

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £9.80 per hour. The postholder is responsible for supporting students and staff in the learning process with regard to TV, film and video production. It is a role which clearly includes a 'teaching' role and enables the college to

develop capacities in its staff and students at what seems to be a fairly low hourly rate". Thomas' judgement: The post was cost-effective.

A-level students, in particular, benefitted from being taught in small groups about how to edit their course work videos. The line-manager and teachers were relieved of routine stock control, equipment loans and maintenance. Some income was generated from external commissions of promotional videos for commercial companies.

The only change to the post by the second phase was that the postholder had completed a course (paid for by the college) in computerised video editing - and so become the college's acknowledged expert. This had led to increase in work with groups of students, especially those post-16. The postholder's appreciation of the additional training had increased job satisfaction and integration in the college. Earlier discontent over hours of work and leave allocation had been ameliorated: the postholder had negotiated to work two extended days a week, to increase the availability of the studios for students, and had an extra weeks leave at the end of each term. Apart from using scarce technical skills for the benefit of staff and students, the postholder took many time-consuming routine tasks from departmental staff. Colleagues considered the postholder provided "value for money because the job is well done...you realise it when the postholder is here, but its even more obvious when they are away".

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 21

Cost-effectiveness data			
(Figures include salary on-c	(Figures include salary on-costs)		
Post		Source of funds:	
Media instructor		College budget	
		Benefits:	
Salary	21,134	In many respects, the postholder undertakes	
		teaching tasks although, as an instructor, the post	
Premises	No return	holder is not a qualified teacher. The post	
		provides the college with some pertinent skills for	
Equipment	No return	its staff and students.	
Supervision	No return		
m . 1	2, 124		
Total recurrent costs	21,134		

Thomas calculated that "Distributed over a 46 week year and a reported 37.5 hour week, the recurrent cost of this post is about £12.30 per hour. This postholder is not qualified as a teacher and the duties expected include fulfilling 'the requirements of the Teachers' Job Description as laid down by law'. While the post is an interesting one it is not obviously innovative, and its cost-effectiveness would depend upon how the individual's performance compares with that of other teachers in comparable posts'.

Thomas' judgement: No firm conclusion.

Recruiting from outside education in this rather specialised area helped foster the CTC aim of bringing in expertise from industry. Staff and students benefitted from the media skills of the postholder and, to a lesser extent, from his professional contacts. Without him, the line-manager and teachers would have had to do more teaching on courses where their practical expertise was recognised as less than the postholder's. This expertise helped ensure value for money when new equipment was purchased. Some income was generated via the production of commercial corporate videos.

For the duration of the study the status of the postholder was virtually the same as that of

Cost-effectiveness of the Innovative Posts

media teachers in the department (and, indeed, of all teachers in the college): he had a full timetable teaching BTEC and A-level media studies. The postholder's specific background and skills meant that some aspects of media studies were covered at a higher level than was possible by teacher colleagues or even the line-manager.

By the second round of visits the postholder had become more acclimatised to the culture of the college. However, he had, on occasions, excluded students from his classes. The extra work this created for the line-manager and the resentment it engendered in the teachers to whom students were subsequently assigned, raised doubts about the cost-effectiveness of this post.

Researcher's judgement -Category D: The post met a defined need but, as currently operated, was non cost-effective.

Post 22

Cost-effectiveness data				
(Figures include salary on-	(Figures include salary on-costs)			
Post		Source of funds:		
Licensed Teacher Scheme		College budget		
Trainee				
		Benefits:		
Salary	15,419	Allows the college to meet its requirements for		
		technician skills while also gaining the benefit of		
Premises	No return	some teaching from a staff member on the		
		licensed teacher scheme.		
Equipment	No return			
Supervision	No return			
		* Includes £1500 for cost of Licensed Teacher		
Total recurrent costs	16,919*	Scheme.		

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the

recurrent cost of this post is about £10.50 per hour. This is a post which combines teaching and technician duties and, through the Licensed Teacher scheme, shows how the college is able to adapt changes in the teacher labour market to meet its own needs. It would seem to be a creative and cost-effective initiative".

Thomas' judgement: The post was cost-effective.

This 'transitional' post, between senior science technician and qualified teacher, provided valuable (but diminishing) technician support for the line-manager and other science teachers whilst the postholder's skills were being developed in the (increasing) teaching role. The postholder benefitted from the progression opportunities of the Licensed Teacher Scheme (LTS) and the department benefitted from shaping a known and respected technician to meet team needs. The postholder was paid at the (lower) technician rate whilst training although, once qualified, she would have a teaching contract and be paid on the teachers' pay scale. This would cost the college more in salary (depending what enhancements were made for the postholder's 13 years experience as a technician) but the training costs would no longer apply.

By the second round of visits the postholder had almost completed her training and had been teaching a full timetable in mathematics and science for the whole academic year. She would not be on a teaching contract until the following September but had been given an increase in pay in recognition of her teaching role. The postholder was considered to have been an ideal LTS candidate who gave good value for money ("She should be paid higher than she is if you looked at all her years of experience") and was expected continue to do so, even taking account of the increments on the teaching scale she was to be allowed, once qualified ("They are getting a whole lot more from me than a newly qualified teacher"). The cost of the pay rise would more or less cancel out the savings from the termination of the training costs but, even so, the post was reported to be "cheap for the value we get from her".

Researcher's judgement -Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 23

Cost-effectiveness data			
(Figures include salary on-	(Figures include salary on-costs)		
Post		Source of funds:	
Business links		College budget	
		Benefits:	
Salary	19,581	Brings information and responsibility on	
		vocational activity into middle and lower levels of	
Premises	280	management, and may contribute to the	
		institutionalising of this orientation as a	
Equipment*	466	embedded feature of the college mission.	
Supervision	292		
Total recurrent costs	20,153	* Equipment costs spread over five years	

Thomas calculated that "Distributed over the 40 week student year and a contracted 37.5 hour week, the recurrent cost of this post is about £14.44 per hour. The post includes teaching and section head responsibilities but its distinctive aspect is a co-ordinating role with responsibilities which include links with the local business community, liaison with appropriate local and national vocational organisations and monitoring vocational work across the curriculum. In many schools these roles are undertaken at a more senior level and its embedding at a middle level may reflect a re-thinking of management structures and responsibilities in the context of the technology mission of the college". Despite this final comment, Thomas remained equivocal about the cost-effectiveness of the post.

Thomas' judgement: No firm conclusion.

The college benefitted from the postholder's business experience and contacts, although there had been expectations of more benefits from links with industry which had not developed as planned. (The postholder, initially, was a member of the SMT. This ceased when it became obvious to governors that the role in relation to sponsors was not developing as expected.) The line-manager was freed from some external liaison but this benefit was partly off-set by the occasional separate briefings on curriculum issues he had to give the postholder. The teachers' work load was lightened by the postholder's input to teaching IT

and business studies and it was anticipated that their experience would be broadened by placements in industry organised by him. Students benefitted from the postholder's teaching input and the careers guidance and work experience programme he organised. Although the cross-college role was lacking in clarity and attracted some resentment from teachers, and despite the postholder's reservations about the role, the post appeared, initially, to represent good value for money.

By the second phase the postholder had lost some responsibilities: the focus of the post was on careers and work experience, with a point-four teaching commitment. The teacher placement scheme had not developed to the extent expected. There was some confusion over who was in charge of industry links and the postholder's role in that had lessened, although he organised industrial 'events' for students. The line-management structures across the college as a whole had altered and the postholder had a more tenuous link with his former line-manager. He was more autonomous by choice, although this meant he had to liaise with a number of departmental heads and lacked obvious routes of communication and support.

The cost-effectiveness of this post was difficult to judge. Early expectations of industrial activity had not been realised. The original post was possibly too broad in conception. It not only placed very high demands on the postholder but also risked infringing the traditional territory of teachers in more than one department. This served to increase stress on the postholder. Subsequent changes to the scope of the post lessened its innovative aspects but still allowed the incumbent to carry out the careers and work experience responsibilities which are often allocated to a more senior teacher, plus he had a significant teaching input. On balance, the post, with all its problems, continued to provide value for money.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

To summarise this section, Thomas considered that eight posts were cost-effective, whilst he came to no firm conclusion on the remaining five. The researcher's judgements were that only six were cost-effective (including one that was problematic in several ways) and seven

were spread over four of the other categories. In six cases there was agreement between Thomas and the researcher. Differences, over seven posts, were mainly due to the researcher's knowledge of changes that had taken place by the second phase of the study.

5. Researchers' assessments of the cost-effectiveness of nine management and curriculum support posts

Post 24

Cost-effectiveness data			
(Figures include salary on	(Figures include salary on-costs)		
Post		Source of funds:	
IT manager		College budget	
Salary	31,722	Benefits: The post ensures that administrative, educational and curriculum computing requirements are	
Premises*	nil	assessed together. Representation at a formal management level can contribute to dialogue	
Equipment*	nil	between providers and users of IT.	
Supervision*	nil		
Total recurrent costs	31,722	* As reported by the Director of Finance and possible an indication of the limited data often used in costing.	

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent costs of this post are about £18.40 per hour. The post holder has oversight for the college's computing systems, administrative, educational and, initially, for IT in the curriculum. It is a role which includes inputs to teaching and staff training and also involves representation on the college's middle management board. The reported data show this as a comparatively highly paid post and its overall cost-effectiveness needs to be assessed in the context of salary levels for comparable work in other settings".

Thomas' judgement: No firm conclusion.

All aspects of the college's work and its mission had something to gain from this dual post. The postholder had a management and a purchasing role (he controlled "the biggest budget

in the college apart from the teaching budget"). Administrators and teachers benefitted from the postholder's IT expertise and from his input to teaching and to staff training. Incoming year 7 students benefitted from the postholder's pre-entry IT courses. All students and staff benefitted from a network accessible for 10 hours daily. However, this post was the most highly paid of the three dual IT posts, and the only one held by a qualified teacher.

Significant changes were in place by the second phase. The demands on the postholder of the dual role in a CTC, under pressure to be experimental with IT in the curriculum, had been acknowledged ("In this particular institution its impossible to combine system support with the IT curriculum. Anywhere that is running a large network like ours needs to separate the two roles"). If the network went down, especially on a day when the postholder had a heavy teaching timetable, both teaching and administration suffered. After many years in teaching, the postholder had come to prefer the network to the curriculum role. Moreover, he had completed, partly at his own expense, a course which qualified him as an IT engineer. Accordingly, the decision had been taken to appoint a separate head of the IT curriculum although, at the line-manager's insistence, the postholder retained 12 (out of 30) periods a week teaching IT ("Its important he keeps contact with children. He then picks up the reason he's providing the infrastructure. He's not just on a technical spree").

It was difficult to reach a conclusion as to the cost-effectiveness of this post, as its consequent operation differed from how it had initially been conceived. In its original (and innovative) form the post was possibly too broad in scope for one person to sustain (the open access and staff support were valuable but extracted a high price in human effort). It was a relatively highly paid post, though reportedly no higher than the manager of a similar size network in industry. But educational salaries rarely equate with industrial salaries (usually to the detriment of the former) and this post was paid significantly more that either of the two comparable dual postholders (numbers 26 and 28), both of whom also had industrial experience and both of whom retained their dual responsibilities. These two comparators cast doubts on the value for money provided by this reduced post.

Researcher's judgement -Category E: The post had initially met a defined need and

was held by a competent postholder but changing circumstances made it non costeffective.

Post 25

Cost-effectiveness data		
(Figures include salary	on-costs)	
Post		Source of funds:
Graphic designer		College budget
		Benefits:
Salary	10,036	Contributes to high quality presentation of
		internally produced material at comparatively low
Premises	150	cost.
Equipment	100	
Supervision	25	
Total recurrent costs	10,311	

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37.5 hour week, the recurrent costs of this post are about £6.00 per hour. The post provides an opportunity for the college to make available high quality design skills to enhance its published material. All schools and colleges produce much learning material internally and to supply this well designed can only contribute to the responsiveness of learners. This is an innovative post and has the prima facie appearance of a most cost-effective deployment of funds". Thomas' judgement: The post was cost-effective.

The college as a whole benefitted from the high quality materials for external and internal consumption produced at comparatively low cost. Staff received some training in using Apple Mac equipment. Older students received advice on layout and design of course work. In addition to her salaried post, the postholder ran a college sports team.

By the second round of visits the original postholder had left to take up a post outside

education. Her replacement had spent some years in industry. He had considerable photographic experience as well as design skills so the post had been re-named 'graphic designer and photographer'. The new postholder continued the graphic design work for administrative and curriculum materials and the staff training in using Apple Mac. In addition, he was building up a college photographic archive. He was studying part-time (with college support) for a degree which he intended to follow with a PGCE. Accordingly, he was keen to gain relevant experience and was about to start teaching non-examined enrichment courses in photography to post-16 students. The senior management had discussed with him the possibility of the role developing into that of tutor/technician. Although the college had to find someone else to run the sports team, with the change of postholder the post continued to provide good value for money.

Researcher's judgement - Category B: The post met a defined need and, with a change of postholder, was cost-effective.

Post 26

Cost-effectiveness data		
(Figures include salary on-costs)		
Post		Source of funds:
IT manager		College budget
		Benefits:
Salary	28,028	Combines IT systems maintenance ability and the
		skills of a teacher which can be an important
Premises	No return	combination in ensuring that the needs of the
		educational context are properly understood.
Equipment	No return	
Supervision	1,040	
Total recurrent costs	29,068	

Thomas calculated that "Distributed over a 46 week year and a contracted 40 hour week, the recurrent cost of this post is about £15.80 per hour. This post combines system maintenance and development as well as having an educational role in increasing the IT competence of staff and students. A post such as this, combining support and teaching functions, represents a concern for a college to have staff who are well grounded in educational needs as well as in IT skills. Whether this needs to be met on the salary of a teacher is not always judged necessary and its cost-effectiveness here depends upon the specific contribution of the individual. In this case the previous experience from commerce contributes to obtaining value for money in purchasing IT supplies".

Thomas' judgement: No firm conclusion.

The SMT benefitted from the overview of, and advice on, IT developments which the postholder could provide. The line-manager was freed for strategic planning and management. Students benefitted from the postholder's expertise and his teaching of IT and an A-level humanities course.

By the second phase the technical IT role had become more focused, in line with college-wide developments on target setting and performance indicators. The postholder was emerging from a fraught period during which he had been responsible for introducing new electronic systems for attendance, security and catering ("a mushrooming workload"). Problems with the new systems meant he had been forced to spend less time giving IT support to teachers or to his own teaching groups and more time "firefighting" technical problems. Other policy changes had resulted in more IT courses being taught which had led to the recruitment of more IT staff.

The postholder's own role in the IT curriculum had diminished and had been partly taken over by the line-manager. The postholder's "uncomfortable marriage of roles" had made him feel "a veteran" in terms of his commercial and technical experience but "the new boy on the block" with regard to teaching which he, nonetheless, enjoyed and wished to continue. Accordingly, he had enrolled on a part-time PGCE course. The postholder was credited with bringing "knowledge about marketing and promotion of the institution far beyond the range of senior managers" and of being a good communicator in the classroom ("He's

worth more than the head of department salary we pay him"). The postholder's considerable technical expertise remained crucial in helping the CTC to fulfill its mission. His teaching input was probably less crucial but ensured educational issues informed technical decisions and vice versa.

Researcher's judgement -Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 27

Cost-effectiveness data			
(Figures include salary on	(Figures include salary on-costs)		
Post		Source of funds:	
Development manager		College manager	
		Benefits:	
Salary	17,180	Enables the college to meet a diversity of needs in	
		its 'Enterprise' area and to do so by generating	
Premises	312	income and new training activities (involving	
		post-16 students, the local community, staff and	
Equipment	130	fellow-professionals.)	
Supervision	1,200		
Total recurrent costs	18,822		

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £11.70 per hour. This is a post with quite a wide range of responsibility but its most distinctive is the duty to undertake income generating activity. As a result of this, the college reports that almost 70 per cent of the cost of the post has been off-set by income. A post such as this does illustrate the innovative potential in establishments such as this college".

Thomas' judgement: No firm conclusion.

The college was keen to promote its role in meeting the education and training needs of the local community. It benefitted from the postholder's knowledge of quality initiatives and

experience in negotiating grants from Training and Enterprise Councils (TECs). The postholder was steering the college through the Investors In People (IIP) process in addition to organising Youth Training (YT) courses, day and evening courses for adult 'returners' and some GCSE re-take classes for school leavers and others in the community. These courses not only furthered the college's aim to be innovative and responsive in the provision it offered but they also generated income. Staff benefitted from the low-cost staff training provided in-house for GNVQ and NVQ assessment.

By the second phase the post had not altered in form but it had expanded. The college had received IIP recognition. The income-generating arm of the CTC (which paid the postholder's salary) had expanded its activities. Income-generation had increased with the production of training materials and the growth of training courses (internal and external) in NVQ and GNVQ assessment and consultancies. The combination of scarce skills and income generation made this post economically worthwhile for the CTC.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 28

Cost-effectiveness data			
(Figures include salary on-c	(Figures include salary on-costs)		
Post		Source of funds:	
IT manager		College budget	
		Benefits:	
Salary	19,220	Provides a cross-college co-ordinating role for IT	
		in administration and the curriculum. Brings	
Premises	312	considerable expertise to the IT curriculum.	
Equipment	130		
Supervision	None		
Total recurrent costs	19,662		

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37 hour week, the recurrent cost of this post is about £11.55 per hour. The post integrates a number of IT functions in one role and provides an across-the-college perspective on this area and how it might develop. Such an arrangement provides an important opportunity for the cost-effective management and development of these increasingly important resources".

Thomas' judgement: The post was cost-effective.

Administrators benefitted from sophisticated IT procedures and training. The postholder managed the IT budget and advised other budget holders on value for money in IT equipment. He was responsible, with his technicians, for the installation and in-house maintenance of IT equipment. He line-managed the team of IT teachers and taught IT skills in the department. Teachers gained in-house training and on-going support in IT across the curriculum. Students, reportedly, benefitted from the postholder's support in flexible learning and from a technology class the postholder offered as part of the enrichment programme. In addition, the postholder retained some consultancies from his time in industry which he carried out during college vacations. A percentage of the fees went to the college and was used to buy additional IT equipment.

The post changed little between visits. Demands on the postholder had increased as the technology had become more sophisticated and as staff and students were introduced to the Internet and to the developing multi-media work. "Wearing two hats" had become easier, as the department had strengthened as a team and as the postholder was able to delegate more to technicians. It was claimed that, in any CTC, "this particular role would be necessary and, provided whoever took it on could deal with it effectively in their own way, cost-effective". Coming new to the college from industry, yet involved in the curriculum and committed to the aims of the CTC, the postholder was considered capable of balancing technical requirements with educational demands. The college gained much from the post-and for a salary considerably lower than the two similar posts.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 29

Cost-effectiveness data					
(Figures include salary on-costs)					
Post		Source of funds:			
Vocational assessments		College budget			
		Benefits:			
Salary	17,296	Combines several roles in the post-16 area and			
		shows how the college is using its employer			
Premises	600	discretion to combine different skills in one role.			
Equipment	416				
Supervision	1,300				
Total recurrent costs	19,612				

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 37 hour week, the recurrent cost of this post is about £11.50 per hour. This post is concerned with post-16 students at the college with responsibilities which include: teaching, NVQ assessment and special needs. Its combination of roles reflects some of the distinctive aspects of the college's purposes". Thomas remained equivocal about cost-effectiveness.

Thomas' judgement: No firm conclusion.

This post, like Post 27, helped promote the college with the local community by the provision of courses for adults and school leavers. These groups benefitted from BTEC courses in Caring Services (which, for example, enabled post-16 students or 'women returners' in the community to qualify as nursery nurses or play workers). These courses generated income for the college. Teachers could gain experience in FE-type work by contributing to the BTEC courses and to the NVQ courses being developed for post-16 students.

By the second phase the postholder's involvement with BTEC courses was diminishing and her input to child care assessment had expanded, reflecting the ascendancy of NVQs in that area. The postholder organised training courses in NVQ assessment which enabled day nursery or playgroup staff to qualify as workplace assessors of trainees. College staff benefitted from the in-house training in NVQ assessment provided by the postholder which gave them another string to their bow. The postholder generated a significant proportion of the costs of the post by training candidates on the (mainly) fee-paying courses.

Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 30

Cost-effectiveness data (Figures include salary on-costs)					
Post		Source of funds:			
Projects manager		College budget			
		Benefits:			
Salary	21,285	The post shows how the college is able to			
		respond to commercial opportunities.			
Premises	No return				
Equipment	No return				
Supervision	No return				
Total recurrent costs	21,285				

Cost-effectiveness summary

Thomas calculated that "Distributed over a 46 week year and a contracted 35 hour week, the recurrent cost of this post is about £13.20 per hour. This post is principally concerned with all special projects outside the normal curriculum, as well as duties relating to reprographic and external profit-making projects. It does represent a real innovation and shows how the college is able to respond to a commercial opportunities. In some respects, the overall cost-effectiveness of this post will depend upon the longer term impact of the ethos embodied in the post".

Thomas' judgement: No firm conclusion.

This post was an example of how the college was prepared to respond to personal approaches from someone known to the senior management and who had suggestions for innovative-sounding projects with the potential to generate income. The postholder came with a particular project in train which she had begun to develop in her former self-employed career. She considered her media and marketing expertise would benefit the CTC and was prepared to combine the projects manager role with meeting the college's more mundane need for someone to take charge of reprographics. All staff, but teaching staff in particular, benefitted from having a named person in charge of reprographic and from the desk top publishing (dtp) skills of the postholder. Some external reprographic work for local companies generated a modest income. Older students benefitted from the postholder's expertise in graphic design applied to their course work projects. This skilled input was unexpected and added value to the post. However, even during the first phase, tensions were emerging over resistance from both teachers and technical staff to giving their time - or to their students giving time - to the postholder's project and over her lack of enthusiasm for the reprographic responsibilities.

By the second round of visits changes to the college management structure had given the postholder a new line-manager, a teaching senior manager rather than an administrator. The purchase (negotiated by the postholder) of new, more sophisticated equipment had reduced the time spent on routine reprographic work but site security made an over-the-counter service impractical and this had waned. The reprographic role was still seen as secondary by the postholder and as relatively expensive (in comparison to a media resources officer's salary) by management. The postholder's graphic design skills contributed more effectively to the curriculum, mainly due to the curriculum orientation of the new line-manager, but the input remained *an hoc* rather than timetabled. The initial project had not reached fruition and had been terminated. There had been no new projects that year.

With hindsight, senior managers considered they should have defined the post more clearly from the start, with notional time allocations to the different aspects of the role. As it had turned out, "a conventional reprographic officer would be cheaper and probably more efficient". This was an insufficiently-thought through post which had not met expectations

Cost-effectiveness of the Innovative Posts

and which, far from being cost-effective, probably cost the college money in inflated salary costs.

Researcher's judgement - Category F: Doubts about post, postholder and costeffectiveness.

Post 31

Cost-effectiveness data					
(Figures include salary on-costs)					
Post		Source of funds:			
Senior manager		College budget			
		Benefits:			
Salary	27,078	The post combines line-management			
		responsibility for six divisional heads with			
Premises	188	support service functions in the college. The			
		structure can contribute to a cross-college view of			
Equipment*	473	needs.			
		·			
Supervision	1,300				
		* Equipment costs spread over five years			
Total recurrent costs	29,039				
441					

Cost-effectiveness summary

Thomas calculated that "Distributed over the 46 week year and a reported 40 hour week, the recurrent cost of this post is about £15.80 per hour. The duties provide a means for integrating the provision across the college of the range of support services through its line management responsibilities for six divisional heads. As with some of the other posts in this college, it is the innovative approach to a management structure which is the basis for a number of posts with distinctive responsibilities. It has led to asking new questions about the distribution of responsibilities and, in this respect, contributes to the potential cost-effectiveness of staff time. In addition, the postholder contributes to external relations and teaching IT".

Thomas' judgement: The post was cost-effective.

The post illustrated a willingness to promote to a senior level someone who was not a

Cost-effectiveness of the Innovative Posts

qualified teacher. The college gained from the postholder's contribution to external relations with parents, the public and the media. Management tasks could be delegated. Teachers and students benefitted from the postholder's role in the development of investigative skills and her contribution to teaching and to staff training in IT. The postholder welcomed the opportunity to teach, which the CTC provided.

By the second round of visits the post had been confirmed in a new senior management structure. The college policies were moving towards only qualified teachers teaching so the postholder had lost some curriculum responsibilities, although she retained her teaching and support role in IT, which accounted for approximately half her time. The postholder was training, in house, to be an assessor for the GNVQ in IT. She still line-managed three support section heads. The postholder's PR and marketing roles had increased and she had become involved in recruiting students.

Although a relatively highly paid post, the college would have needed a point-5 teacher to cover the postholder's IT classes and her personal skills, promotion of, and commitment to, the CTC, helped the post to provide value for money.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Post 32

Cost-effectiveness data					
(Figures include salary on-costs)					
Post Source of funds:					
Technician manager		College budget			
		Benefits:			
Salary	16,449	The cross-college supervisory aspect of this role			
		is important in contributing to a more effective			
Premises	87	utilisation of technician time. This is enhanced			
		by the responsibility for liaising with the heads of			
Equipment*	431	relevant curriculum divisions. There is also			
•		input to teaching, and staff in-service training.			
Supervision	260				
, Saparasa					
		* Equipment costs spread over five years			
Total recurrent costs	17,227	4.1			
1 com i comi tont costs	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				

Cost-effectiveness summary

Thomas calculated that "Distributed over the 46 week year and a contracted 37.5 hour week, the recurrent cost of this post is about £10.00 per hour. The Technician Manager includes the role of health and safety officer, a responsibility which is sometimes carried at a more senior level elsewhere. The post includes line-management for about 10 staff and a cross-college responsibility for liaison with the divisional head for technician support; through this, it challenges some traditional practice where much of technician work can be too closely linked with one area of a school or college. An overall assessment suggests a cost-effective innovation".

Thomas' judgement: The post was cost-effective.

The teaching departments of the college benefitted from the postholder's overview and cross-college deployment of his team of technicians and from his extensive knowledge of health and safety legislation, which informed the in-service training he provided for staff. However, it was the additional contributions from the postholder which made this post innovative and potentially cost-effective. Thus, teachers and students benefitted from the postholder's input to teaching modules in IT, first aid and health and safety. In addition, his involvement in the enrichment programme included organising the Duke of Edinburgh Award Scheme, running

two after-school clubs and (during the annual residential week for students) acting as a qualified instructor in several outdoor activities.

By the second phase, the postholder had been given a point-6 teaching timetable and was teaching IT to Years 7 to 10. The change in role pleased him ("I felt it was the natural way forward"). He had been given a new dual contract according to which he was paid on the teachers' scale for his teaching and on the technician scale for the technician management responsibilities.

Researcher's judgement - Category A: The post met a defined need, was held by competent postholder and was cost-effective.

To summarise this third section, Thomas judged that four posts were cost-effective and in five cases he came to no firm conclusion. The researcher agreed with the four but added three more and, for different reasons, classified two posts as non cost-effective.

6. Discussion

This chapter has reported the respondents' views, Thomas's judgements and the researcher's assessments of the cost-effectiveness of the 32 posts. Supervision costs were not included for seven of the 32 posts and, in some cases, were assessed at what appeared to be unrealistic levels. It was noted that this may have been because managers were unused to having to assess such costs. In two cases in particular, the very high reported supervision costs made otherwise cost-effective posts seem much less so. It was noted, however, that as the postholders became more familiar with their new responsibilities, there was the likelihood that they would need less supervision and would become more cost-effective. Quantifying the premises and equipment costs of initiatives was also not undertaken consistently by managers, perhaps for the same reason, and information was omitted for almost one third of posts. The analyses indicated that Thomas considered 16 (50%) of the 32 posts to be cost-effective; the researcher considered that 19 (59.4%) were so. Both figures were less than the 75 per cent reported by respondents in Table 8.3. The differences between the iudgements may have been because respondents were dependent on only one source - their

own knowledge of the post. Thomas had access to information from the first phase interviews, as well as job descriptions and financial information provided by the colleges. The researcher's assessments were based on all the interview data over two years; they are summarised in Table 8.5 on the following page. As noted earlier, the final evaluation of each post will be made in Chapter Eleven.

There are a number of issues which emerge from the findings reported in this chapter, some of which give some pointers to the generalisability of the findings.

Change over time

Eighteen of the 32 posts had undergone at least one significant change between the two phases of the study and some had undergone more than one. Examples were: change of job title, reflecting a different emphasis in the role; changes emanating from new management structures in the colleges which resulted in, for example, a new line-manager; changes in the planned career path of postholders by them seeking to qualify as a teacher; and a change of postholder. Change, of course, will occur in any institution - and educational institutions have been subject to more than most in recent years. Fairly rapid change may be a feature of new institutions, as they learn 'on the hoof' and adapt to new circumstances. But the amount of change was probably also a consequence of the flexibility enjoyed by CTCs, together with their new responsibilities (many of which were formerly handled by the LEAs), the pressure some of them were under to open on schedule, and their efforts to meet the high expectations held of them. The rapid growth of the colleges, and consequently, of the responsibilities allied to some posts, meant that the original innovative elements had been submerged or, in other cases, had superseded their other tasks. In some cases this had reduced their costeffectiveness. Changes in management had led to changes of policy and a reversal to teachers of some of their traditional tasks more recently delegated to lower paid associate staff.

The respondents' views of the experience of, or the management of change will be discussed in more detail in Chapter Nine.

Table 8.5 Researcher's assessments of the cost-effectiveness of the posts

	40.00	Colle	ge factors	
		A: Post valued and cost-effective	C: Post valued; costly supervis.	E: Post problematic
P o s t h	P'h able	Public relations Director finance Site/facilities Systems Site/facilities	Buyer/premises Systems	Site/welfare Personnel
l d e r		Info. resources Curric. support Info. resources Video/film tech. LTS trainee Business links	Sen. sci tech.	Teach/technician Sen. co-ord.tech. B'caster/tutor
		IT manager Development IT manager Vocat. assessments Senior manager Technician man.	******	IT manager
	S.Total	17	3	6
P o s t		B:Post valued and cost-effective with change of p/h	D: Post valued; not cost eff. as currently operating	F:Doubts re. post & p/h
h o l d e r	P'h proble matic	Parent/coll relats. ************************************	**************************************	Learning liaison Technician/tutor *************************** Projects man.
	S.Total	2	1	3
	Total	19	4	9 (32)

Opportunism

The CTCs had the flexibility and the financial autonomy to be opportunistic in the way they employed and deployed associate staff. Unsolicited approaches by parents, or members of the public who had heard about the college, were taken seriously and, in some cases had resulted in appointments, some of which had been very successful. Similarly, people known to, or employed by the colleges in a different capacity (providing consultancies or other assistance in the setting up of the colleges) had been invited to stay on in posts which sometimes had been moulded to suit both the emerging needs of the new institutions and the perceived strengths of the persons concerned. In each of the eight colleges associate staff made an input to teaching or instructing groups of students and in four colleges they were encouraged, even expected, to contribute to projects or enrichment classes. The opportunism of CTCs undoubtedly broadened the range of some associate staff posts and provided a progression route for staff wishing to pursue a teaching qualification. It also gave managers scope and flexibility in the use of staff and, as many of the 'cameos' have illustrated, provided value for money.

There was, however, a down side. Posts which were unusual and potentially innovative, by definition, rarely had known parameters or pre-conceived guidelines as to their operation. Posts which seemed essential or which worked well in the early days of a new institution, or which were moulded by the particular personality of the incumbent, did not necessarily continue to be so successful or necessary (and thereby not so cost-effective) if, for example, the need for the post lessened, or one aspect of a dual role grew out of balance with the other, or even if a particular postholder left. Moreover, some posts, particularly the lower paid, were open to exploitation. Some postholders had their expectations raised unrealistically and were heading towards disappointment when managers decided that what had been a cost-effective short term expedient would not best suit the college in the longer term.

Income generation

Over one third of the posts had an element of income generation in the brief, albeit with differing degrees of emphasis. This aim, though never the sole purpose of a post, probably

reflected the influence of industrial sponsors on the college ethos and sometimes resulted in the colleges becoming, in some respects, like mini adult education institutes, as the traditional boundaries between schools and FE colleges were weakened.

Differences in approach or culture

The use of associate staff as quasi teachers, alongside trained teachers, raised the issue of the differences in approach to teaching and learning, which reduced the potential cost-effectiveness of some posts. The most obvious example was a postholder whose absolutist views on students' behaviour and standards of work clashed with the CTC philosophy of having a range of ability in its intake and with a teaching culture which recognised students' efforts relative to their achievement.

More cost-effective posts

The greatest proportion of cost-effective posts (eight out of nine) was in the third category (management and curriculum support) where postholders had a range of skills which could be used in many different areas of college life. Several of these postholders contributed enthusiastically to teaching the mainstream or enrichment curricula and had high levels of IT expertise, central to the CTC mission.

Less cost-effective posts

Posts were not cost-effective where postholders were deemed ineffectual, where posts were ill thought-out or where changing circumstances rendered a once economically sound post no longer so.

Generalisability of cost-effective posts

The relatively well-resourced position of the eight colleges and their greater freedom over staff recruitment could imply that the findings of this chapter on the cost-effectiveness of posts have little generalisability for secondary schools in the maintained sector. Moreover, posts in the independent CTCs which subsumed tasks normally carried out by the LEA would, by definition, have less relevance for schools still under the local authority umbrella. That

said, there are several kinds of posts in this study from which tentative generalisations for other secondary schools may be drawn.

Applying the principles, set out in Chapter One and summarised in the Introduction to this chapter, of 'fitness for purpose' and of holding a staff audit (of the match between responsibilities and skills) when considering the deployment of staff, could mean that associate staff, with skills that match the requirements of the job, could provide more costeffective use of the same level of resources. In some cases such staff will have more appropriate or higher level skills than teachers who have traditionally done the job. Most schools would benefit from posts which brought specific financial expertise (important for sound financial management in an era of fully delegated budgets) or from posts (such as the IT or information resources managers) which brought in high level IT skills (essential in this age of electronic communications and the information superhighway). Some of these posts could command salaries commensurate with senior teachers so that, particularly if they were full-time, they would not be cheap. However, if the posts also included responsibilities usually assigned to a deputy head or senior teacher, but which did not call for pedagogic knowledge or skills (such as the oversight of premises-related matters or income-generating activities, or the management of other associate staff) senior managers could be freed for their prime professional roles and there might even be additional savings to set against the costs.

In a period when positive parental perceptions are crucial, parent liaison posts, which take away from teachers a number of time-consuming duties and, moreover, do so at lower costs, could also be generalised to other schools. The same could be said of those posts (such as buyer or senior technician) which, at less cost, relieve teachers of routine tasks.

More contentious - and possibly less generalisable - were those posts which, with the greater freedom enjoyed by CTCs, were held by staff who were not qualified teachers yet who taught (or 'instructed') on a regular basis, for a significant part of their time. Some postholders followed instructions in lessons planned by teachers but others had helped devise course

Cost-effectiveness of the Innovative Posts

work which they taught and also assessed. Several of these posts would meet the 'fitness for purpose' criterion but might not be welcomed in maintained schools. Teachers' professional associations may regard the extension of innovative support posts into the domain of teaching as being a step too far.

This chapter has made a series of judgements about the cost-effectiveness of the 32 posts. The data have also uncovered issues to do with the challenges of introducing and implementing innovation and change - issues which form the subject of the next chapter.

Chapter Nine

COLLEGE CHANGE AND MANAGEMENT APPROACHES TO INNOVATION

Introduction

Chapter Nine reports on changes that occurred between the first and second round of visits to the eight colleges, in particular those changes which impacted on the 32 associate staff posts. These data are presented for the first time in this thesis. The chapter also amplifies the findings on management techniques for introducing and implementing innovation and change which were described briefly in the ESRC report. Some of the findings referred to in this chapter have already been noted in the preceding assessments of cost-effectiveness.

The emphasis of the interviews in the second phases of the research was on the experience and management of change. Senior managers, line-managers and postholders were reinterviewed. Three postholders, one line-manager and three senior managers had left; three new postholders, one senior manager and one line-manager had taken up posts. The new staff members were not in a position to comment on changes in the course of the study so they are not included in this section. The total number of respondents was 72. Governors and non-line-manager teachers were not re-interviewed, partly due to pressure on the project resources (noted in Chapter Two) and partly because, of all groups of respondents, they were more distanced from the innovations.

This chapter has five sections.

- 1. Changes to staffing policies
- 2. Changes to staffing practices in relation to the 32 posts
- 3. Barriers encountered in the management or experience of change
- 4. Management techniques for implementing innovation and change
- 5. Discussion.

1. Changes to staffing policies

By the second phase of the study, six of the colleges had undergone some changes in staffing policies affecting their general use of associate staff which, in turn, had influenced practice in relation to the 32 postholders. One of the six colleges, plus a seventh, had also introduced changes to curriculum policies which had implications for associate staff.

Four colleges had restructured their senior management, either to slim down a structure perceived as top-heavy, to rationalise (and reduce the costs of) curriculum and administrative responsibilities, or to transfer some roles and duties from over-burdened senior managers to middle managers. Two colleges, which had grown out of former local authority schools, had retained a number of staff from the previous institutions. In consequence, they were faced with unsustainable pupil-teacher ratios (PTRs), a static staff group, or staff who had difficulties taking on board the more innovative or entrepreneurial ethos of the CTC. As one senior manager, "They all said they would want to stay here - for ever. And they've all been here - for ever. They haven't got a vision from elsewhere - they need new staff to give them that".

In two colleges it was reported that greater experience of staffing innovations and the recognition that the nature of the institutions was different to when they opened, had led senior managers to adapt policies and practices to the changed circumstances. In one case, for example, financial constraints and the college's positive experience of technicians doing some teaching, were leading the college towards having fewer teachers and more associate staff working to a 'master teacher'. Furthermore, developments in IT were expected to result in medium term capital investment, by the college, in even more sophisticated IT equipment to enable students' self-directed learning of some parts of the IT curriculum, thus "freeing staff to operate at a higher level". Drawing these strands together, a teaching and learning scenario was envisaged in which, for example, four classes would be timetabled together, with a team of two or three staff (including associate staff) led by a 'master teacher'. It was envisaged that a number of networked machines would take care of some of the training and skills acquisition (with technical associate staff on hand). This was seen by

senior managers as a rational progression which built on the college's successful experience of associate staff. This kind of scenario was foreseen by a school head teacher in Mortimore, Mortimore and Thomas (1992) and bears some resemblance to the role of Advanced Skills Teacher (DfEE, 1997).

In a second college, experience in the opportunistic use of associate staff had made senior managers "look more deeply and critically into ...utilising members of the associate staff, just to make sure we are not asking them... to do things that are throwing their core functions out of kilter, to make sure they are really being used to the best of their advantage and ability, and to make sure they feel they are being treated fairly, both in terms of their workload and their remuneration. We have, perhaps, in the past traded a little bit too much on people's goodwill and not sufficiently grasped the need to have a reasonably formal structure within which to operate". The need, at a time of rapid change, to guard against not losing the core function is what McMaster (1995) referred to as the principle of "maintaining the system at the margin between rigid linearity and chaotic ineffectiveness" (p 8).

Overall, in five colleges there was a pattern of tasks being diverted from teachers to associate staff. This represents an expansion of one of the most fundamental roles of associate staff, taking on tasks which do not require the attention of trained teachers and thus leading to extra time for pedagogically related activities.

One college, however, was reported as reverting to more traditional staffing policies within a simplified line-management structure. The changes meant associate staff were less involved in teaching and curriculum matters and senior teachers had assumed some administrative responsibilities which, formerly, had been undertaken by administrative staff. This policy was leading to reductions in hours or weeks worked (for example, from full-time to term time only) and possibly to fewer associate staff posts, moves which were against the trend in the other colleges. This was considered to be "Definitely not cost-effective but it will be done in the name of reducing the percentage of money spent on associate staff. We

had a culture of teachers and a few other people teaching. The administrative jobs and the menial tasks have been done here by people who are on lower salaries, who are quite capable of doing the job, and it releases teachers to teach. That's where their talents are. Now the culture seems to be being turned on its head".

In one of the two colleges which had seen changes to curriculum policies, a broadening of the vocational curriculum had led to recruitment of more associate staff with relevant industrial or professional expertise. In the other, the policy of introducing more GNVQ and NVQ courses (for post-16 students and adult learners) had led to associate staff providing, for teaching staff, in-house training on assessor verification courses.

Overall, seven of the eight colleges had undergone changes which impacted on the use of associate staff. The study was conducted during a time of educational change nationally but, even taking account of that, the amount of change merits comment. The two colleges which had been former LEA schools were having to come to terms with the effect of compromises, made at the time of the transition to CTC status, to accommodate some former staff. Staffing policies and structures, which had seemed workable then, needed reshaping in the light of experience. New ('green field site') colleges had often been under pressure to meet opening deadlines, and structures which had seemed appropriate or expedient then had needed to change as college numbers reached their complement and priorities altered. Moreover, some senior managers had found that the staffing flexibility enjoyed by CTCs, to recruit as teachers in certain subjects staff who were not qualified teachers, had created some problems - whilst others with more positive experiences were seeking to increase the use of such staff. All these factors contributed to the degree of change reported in the colleges.

2. Changes to staffing practices in relation to the 32 posts

The policy changes had resulted in changes to practice which affected many of the 32 associate staff. This section reports the views of line-managers and postholders on how and why the posts had changed and on whether the changes were perceived as being for the better or for the worse. Some of the changes were relatively minor; others were more significant.

The reasons for the changes, beneficial or not, are set out in Table 9.1. (Many of the changes have been noted in the preceding chapter so the information in the Table will be illustrated with only a few examples in each category.)

Table 9.1 Reasons for changes, for better and for worse, in the 32 posts

	SA	eT	Line-ma	ın	Assoc.sta	ff .	2	Total
N	16*	**	27*	**	29**	*	72**	*
Logical devel. of role	8	1	4		12	1	24	2
Lost part of role	6	-	8	2	8	3	22	5
Added to role	6	1	4	2	10	-	20	3
Terms/pay	2	-	3	-	4		9	-
New line-manager	1	Ţ-	3	-	4	1	8	1
P/h as line-manager	1	-	-	-	3	-	4	-
Lack of development	-	1	-	2	-	-	-	3
Other	3	-	3	-	-	-	6	-
Total	27	3	25	6	41	5	93	14

^{*}Numbers in these columns represent changes perceived to be for the better

Table 9.1 shows that there were six main reasons for changes to the posts, with the first three accounting for the majority of them. The most frequent cause cited was that the changes were a logical development of the original responsibilities of the post. Changes had come about for a variety of reasons: as a result of postholders' growth in experience and confidence ("He is developing better and better.... he's growing with the job"); of their further training; of technological and administrative developments (for example, in electronic registration or the use of OMRs for reports); or of curriculum developments (for example, in GNVQs and NVQs). Thus, the LTS trainee had nearly completed her training, so she had moved to a full-time teaching post and had her own tutor group. In the words of a senior manager, "She's one of the most successful candidates for this kind of role. She's the one to be relied upon to do a proper personal and social development session every week. She always knows about her

^{**}Numbers in these columns represent changes perceived to be for the worse More than one response possible

tutor group. She's always up to date", and of the postholder herself, "I'm thoroughly enjoying it. For me it was the logical progression". Participation in a college-financed training course for the video/film technician, which had made her the college expert in computerised editing, had influenced the amount of time spent instructing students and had paved the way for further role development ("The more she has supported students, the better she has understood what is needed... I could see a role change for her ... there are technical course elements which she could teach"). The technician manager was developing staff training in health and safety. An IT manager's role had become more complicated as technology developed and as the college linked to the Internet. The development manager had secured new TEC and Youth Training (YT) contracts and implemented in-house and external training courses for GNVQ and NVQ assessors. Her line-manager thought the developments had been good for the postholder ("she feels less isolated"); good for the line-manager ("something to get his teeth into"); good for the college ("it looks like we'll have some profits to spend"); and good for the "clients" who were "getting a service they might not get somewhere else". All these changes were perceived as beneficial.

However, two respondents noted developments which were less welcome. One postholder had graduated and taken on a teaching timetable. A senior manager, however, considered that "as a technician/tutor she was a very satisfactory operator but...she is a little more vulnerable in the classroom. We are now faced with the consequences of our own success. We built her up...but that creates problems for us with regard to the institution". In the case of another postholder, the increased size of the student body and of the department meant that teachers had less time to brief the postholder or to include him in their planning. The postholder felt less involved whilst, at the same time, faced increased demands.

Almost a quarter of responses reported that postholders had *lost part of their role*. In many cases this had been in order to accommodate their new responsibilities noted above. In other instances, former responsibilities had been made redundant by changes in courses offered, or had become incompatible with other changes in the college. Thus, the vocational assessments postholder had lost most of her role in BTEC assessment in order to concentrate on the

assessment role for the burgeoning (G)NVQs and the curriculum support postholder had relinquished the data base responsibility to take on more teaching. Restructuring in one college had resulted in the personnel postholder giving up her part-time PA role to focus on personnel issues. The site/welfare postholder had shed his responsibility for student welfare in order to concentrate on premises management. As a senior manager reported, "He was losing too much of building services' time doing first-aid. For example, if a child broke a leg we lost half-a-day of the postholder's time while he took the kid to hospital". An IT manager had happily ceded the curriculum responsibilities to a new Head of the IT curriculum. The senior management had deliberately recruited someone with curriculum experience but less technical knowledge so that staff strengths were complementary, rather than competing. Two postholders, who were about to complete their part-time teacher training, had both reduced or shed their technician roles and were on fuller teaching timetables - and very happy to be so.

Of the five respondents who saw disadvantages in the losses, three were postholders. For example, one was "moved sideways" to a much-increased administrative role which meant handing over former responsibilities. The postholder was finding it difficult to come to terms with the change ("I'd built up the job"). The senior manager had her role redefined and, as a result of restructuring, had lost some curriculum-related management responsibilities. The postholder regretted the losses although she could see the logic of the new arrangements. The projects manager reported that a project in which she had invested time and effort had been terminated. Three postholders had not formally lost part of their role but regretted that, over the year, circumstances meant they had to curtail some of the more innovative aspects of it.

Almost a quarter of responses indicated that postholders had added to their role by taking on new responsibilities. These changes had come about as a result of developments in the income generating activities of the college; unexpected needs arising, either in administration or in the teaching of a particular subject; or changes to administrative procedures. Examples included the following. One postholder had assumed the major responsibility for setting up a centre

for the (profit-making) training of NVQ assessors. She stated that "It was a risk at the time but I was fairly confident. NVQs are here to stay, though it will take time for people to accept and understand them". (A view which is supported by the findings of Tomlinson (1995) that teachers were not clear about the aims of NVQs and assumed they were related to training but did not have an educational component.) Two postholders had stepped into the breach and taken on additional teaching. In one case, the college had a shortage of IT teachers (an area in which the first postholder was skilled). In the other case, changes to the line-manager's role had reduced his departmental teaching input and so the postholder helped teach a new examined course in graphics and photography, some modules of which she had helped devise. Health and safety policy and procedures had been added to the roles of two respondents. The move to electronic swipe cards for security, registration, library and catering and of OMRs for recording and assessment had added to the responsibilities of three other associate staff. All these changes were welcomed although some, initially at least, had imposed additional pressures on postholders.

Additions to posts were not seen as beneficial by two managers. For example, the increased demands on one postholder meant "his job has become unmanageable. Its to do with the expanding number and the redesign of the workshop areas, so he couldn't possibly do it all".

The remaining reasons for change to posts received less comment. Eight respondents reported on the benefits of new line management arrangements (for six posts). (Only one post had a line-manager new to the college; other changes were internal.) Changes had been a result of the knock-on effect of restructuring, of former line-managers changing their own role, or of middle managers assuming more responsibilities. In one case, a change of line-manager helped ensure that the postholder was more informed about curriculum issues ("She needed to have a curriculum focus. Lining her to me seemed sensible because I now also line-manage the library/resource centre").

A senior manager, who had given up the line-management of one post, welcomed the slackening of lines of management as a result of restructuring. He commented "We don't have

the rigid hierarchical management structure we had before. We made such a virtue of line-management, and I think it got us into a lot of tight corners. It became very rigid. People felt they couldn't talk to each other... In a school it really doesn't work anyway. The governors imposed it because they thought it was a good industrial model". This was an example of how the introduction of models from outside teaching were not always found to work. Here the college, influenced by its governing body, had tried an industrial model but were able to modify it in the light of experience.

One negative response to change came from postholder who spoke of the impact of SMT changes on his line management and his status. The postholder was no longer line-managed by the Principal but reported to a newly-created internal management board, of which he was also a member. He not only considered this confusing for his peers on the board but felt the distancing of the post from the Principal implied a diminution of his own status.

Nine respondents reported on beneficial changes to contractual terms or pay in relation to four posts. Three of the four postholders had received improvements to their terms and pay because they were doing more teaching. One had graduated within the past year and was paid more accordingly, although was not yet on the teaching scale. A second respondent had assumed a half-time teaching commitment and had been given a pay rise which put her on the first rung of the newly qualified teaching scale. The third, who was about to qualify, was eligible for teachers' (rather than technicians') holidays and would be given a teaching contract and a teaching salary before the next academic year. One postholder had negotiated extra holidays (more than a technician but less than a teacher) in lieu of the two evening sessions she now worked. All four were pleased with these changes.

Four postholders had experienced *changes in their role as line-manager*. These had arisen because of policy changes, staff leaving, new staff joining, or income-generating projects being handed over to separate management. For example, in one college the policy decision had been taken to put technicians back into departments "where they would be line managed within their department" and not by one of the postholders. A senior manager reported "It

was so unclear for the technicians... the postholder was supposed to hear from heads of departments..(who) did not see themselves as having to submit to a senior technician and, as all technicians were largely skilled in one area, they felt more loyal to that head of department. It became very difficult".

Three senior managers reported a "lack of development" in two posts over the year. Thus, one post was described as "a job that with hindsight I wouldn't do again... there has been nothing outstanding or innovatory as a result of the postholder being here" and another had failed to meet expectations and the post was "seen by most people as an irrelevance... many people feel that all she's doing is making more work for them".

The six responses coded as 'Other' related to the three posts which had changed personnel between the two phases of the study.

3. Barriers encountered in the management or experience of change

Respondents were asked whether they had encountered any barriers in managing or implementing innovation and change. Seven barriers, often inter-related, were identified. The responses are shown in Table 9.2. The Table shows that the most common barrier was teachers' attitudes and expectations. Teachers were reported as failing to appreciate the actual and potential skills of associate staff; of not understanding the (often new) role of associate staff; of not appreciating that time spent out of the classroom, or even off-site, was not 'free time'; and of being somewhat high-handed in their dealings with associate staff. Thus, a senior manager stated "Some staff found it difficult to accept. A senior colleague had asked 'how can a technician become a teacher?' Such misunderstanding - such unwillingness to consider the value of the work being done - it was based purely on the postholder's position in the structure". Two postholders, who themselves line-managed other associate staff, reported that teachers sometimes reverted to going straight to other teachers, by-passing them as the legitimate line-managers ("They tend to think they can ask without going through the middle management"). Some teachers were perceived as resenting what they saw as postholders' relative freedom ("They are jealous of it...they have

to be in the classroom"). Having to delegate administrative jobs to associate staff could be perceived by teachers as a threat to their own post ("Teachers look at the admin offices and wonder what goes on there eight hours a day. They are used to being in an LEA where they did not see what went on and did not choose to find out. Here they see an increase in the hours worked by associate staff and a potential decrease in the number of teaching staff. Some teachers appreciate the change from routine tasks going to associate staff; some don't because they may, as a result, have less free periods given to them for admin.").

A different point was raised by a senior manager in an 'evolved' college who reported that staff expectations of the benefits of becoming a CTC had been raised, unrealistically, and there was impatience that senior managers could not effect all the anticipated changes at once.

Table 9.2 Perceived barriers to innovation and change

	SMT	Line-man.	Assoc. staff	Total
N	16	27	29	72
Teach attitude/expectation	2	5	10	17
Pressure of innovation	-	3	5	8
Staff lack capability	5	1	-	6
Status of p/h	•	1	4	5
Lack of support/train.	1	0	3	4
Terms/pay	•	1	3	4
Lack of resources	-	1	2	3
Lack of clarity	-	1	1	2
Other	3	1	2	6
Total	11	14	30	55
None reported	9	15	10	34

More than one response possible

Another significant barrier, reported particularly by postholders, was the sheer *pressure* of the innovation that many staff faced. Dual postholders were singled out for particular comment.

For example, one line-manager declared "The job requires lots of expertise, in almost completely different areas. The network job requires technical expertise in electronics and computer technology. But as head of the IT curriculum you also need to be up in the latest methods of teaching in IT, methods of assessment in IT and - more important for the future - how you can get IT properly used in subject areas. Our subject teachers can't see the possibilities which the postholder could see...but he's got his head down sorting out the inside of a server". The postholder referred to was a qualified teacher. The pressures could be even greater where similar responsibilities were held by someone with considerable industrial expertise but no teaching experience. A different kind of pressure, related to the previous category, was that which some teachers could exert on postholders by not understanding what their roles entailed. Thus, a line-manager reported "Teachers want reports to be computerised and they want them there at the flick of a switch. They don't know the hours required to set it all up...there are 1200 students and 300 staff here and they all expect things straight away".

Many senior mangers were aware that their staff were expected to work long hours, more than were demanded of (though, as some readily acknowledged, not necessarily more than were given by) their counterparts in the maintained sector, and the additional hours could bring increased pressures. A different kind of pressure could be suffered by principals who lacked the support of a local peer group. They could be not just geographically isolated (other CTCs might be some distance away) but psychologically isolated too, particularly in local authorities where their presence was resented.

The strain of constantly trying to innovate and implement change, ("overreaching", as Miles and Huberman, 1984, called it) was a recurring theme and described thus by one postholder, "I don't know if this place pushes people to the limit - or just pushes me to the limit. The danger of a place like this - and it's taken me a long time to see it - is that it tries to do too much rather than to do something well. Too many things are taken on board which are innovative and they work and people are allowed to take risks and it's great. But I think…if there is too much innovation, you start to lose something".

Managers (but no postholders) reported shortcomings in the capability of staff. Senior managers commented on the difficulties of recruiting and retaining appropriate people to carry out an innovative brief. Problems had been experienced in recruiting staff from industry, or even from within the teaching profession, capable of relating the curriculum to the outside world, which then created a barrier to innovation and change. One Principal spoke of "the tricky process of growing people to the point where they actually look at the whole-school impact of any activities...everybody who comes for interview is asked how they'd use industry, including those who've come from industry...most people don't know... industrialists don't know what they want either". Another senior manager, echoing earlier comments on the pressure of being in an institution striving to innovate, reported, "We were not attracting teachers, part of that was that they didn't see career progression and there wasn't a differential between what they were being paid here and what they could get in other institutions - with less hours and less innovation".

A rather different capability issue was that of middle managers being reluctant, without the supportive infrastructure of the LEA, to take their share of responsibility for innovation and change ("Getting them to take decisions and to take responsibility for them...people really find that difficult. They may have been part of a team that's taken a decision but as soon as they are out in the staff room they say 'I can't believe how anyone can have done that'- yet they were there".)

Allied to recruiting staff capable of supporting innovation was retaining them. Managers reported losing effective innovators to other institutions and having to go over much of the same ground with their replacement. Two senior managers bemoaned the fact that staff who were risk-taking and innovative ("just the very people we don't want to lose") also tended to be career minded ("It's a constant uphill struggle because there is a turnover of staff and the staff who leave here, who've been through this (innovation)... and have got the experience, are finding it quite easy to get jobs. Their breadth is always welcomed by schools. But we are finding it difficult to recruit anybody in their place"). This supports the claim by Walford and Miller (1991), noted in Chapter One, that when staff left the CTCs,

they added to the overall pool of expertise in the profession.

Perceived status (or lack of it) could be a barrier to innovation. Thus, one postholder was reported as not being happy with the status of the technician part of her role. Consequently, she was not perceived as fulfilling the technician role as well as she might. Another considered that teachers regarded associate staff "as second class citizens" and a third felt "marginalised" and excluded from curriculum decisions to which he believed he could contribute. Two other postholders resented their own management being delegated from a senior manager to a middle manager: this was seen as demotion in "the chain of command".

Lack of management support or training was noted by two postholders, including a systems manager who regretted the lack of training for a new system. Conversely, resistance to line-management could hinder innovation if, for example, postholders from outside education, used to more autonomy in industry or commerce, resisted being managed and "sidelined" their managers.

No senior managers commented on terms and pay but one line manager and three postholders did so. One line-manager considered (as did the postholder) that the incumbent was not paid adequately ("When we have a pay review it's always felt that, whilst the post is important, there are more important people and positions"). Two other postholders were critical of performance related pay and the effect it had on staff commitment - a crucial element in implementing change. Rather than increase staff motivation, it was reported that the system created "a bloody-minded factor" by which the unrewarded determined to stick to their contractual duties and no more.

Lack of resources was noted by one manager and two postholders. Thus, an IT manager commented "Money is getting tighter...you have to fight harder for a slice of the cake". This attitude reflected the trend over this period. Extra money was less likely to be available and those colleges which had been generously funded in the first few years were feeling the pinch.

The 'Other' responses included a line-manager's regret at too much innovation being vested in one senior post, with all the "essentials" vested in another; and a postholder's view that there was "a barrier that exists in the mind of anyone over the age of 25 - that IT is an alien and imposed discipline, a burden rather than a friend".

These barriers could undermine the goodwill felt by many staff towards their CTC and hinder innovation and change. Several of the barriers resonated with the problems and criticisms noted in Chapter Seven. The overlap served to highlight the importance, noted in that chapter, of managers thinking through the scope and responsibilities of new posts and their implications for the rest of the staff and of communication with teachers and postholders over realistic mutual expectations.

No barriers experienced

It was noteworthy that over half the senior managers (9/16), almost half the line-managers (15/27) and a third of associate staff (10/29) reported they had not experienced barriers to innovation. There are at least three possible explanations for this finding: that respondents genuinely had experienced no barriers; that (as noted in Chapter Six) they may have been unwilling to admit to difficulties; or that they realised CTCs were intended to be innovative and they came expecting change. (For example, a manager and a postholder reported, respectively, "People know what we are about and when people come they expect it to be dynamic"; "If it's a good idea and you can justify it, it's always listened to". Discussion of such sentiments is taken up in the following chapter.

4. Management techniques for implementing innovation and change

Senior managers and line-managers in the CTCs were asked to identify key elements or management techniques which had helped them introduce and manage innovation. The responses are set out in Table 9.3.. Some categories are interrelated. Thus, communication is a necessary part of consultation, which in turn, is essential if those involved are to be empowered to take ownership of innovations. The confidence and skills involved in knowing when and what to delegate is an important component of leadership.

Table 9.3 Management techniques for innovation and change

	SMT	Line-man.	Total
N	16	27	43
Communication	9	7	16
Consult./empower	9	4	13
Leadership	10	3	13
Delegation	9	4	13
Support/staff devel	7	3	10
Planing/review	5	3	8
Culture/ethos	6	1	7
Status/pay pol.	3	4	7
Pace/timing	2	5	7
Other	1	1	2
Total	61	35	96

More than one response possible

It is clear from Table 9.3 that communication was seen as vital ("The main thing is talking to people, being up front with the idea of change and innovation"). Ensuring that staff knew the reasons for change, the context in which it would be introduced and how it might affect their own roles, helped defuse anxiety, lessen resentments and set realistic expectations ("The more people understand, the better it will be because they will feel more comfortable about it, they will see it as a natural path"). Communication strategies included weekly bulletins, the circulation of minutes on e-mail, presentations at staff development sessions and new staff, as part of their induction, being invited to meet with certain postholders who explained their roles. Some managers welcomed the opportunity provided by staff meetings to recap on changes achieved and to preview planned innovations. The meetings could be used as a "lever on middle managers" to follow up on what had been agreed and minuted ("It's really just to make sure everyone gets the message...you can push the middle management and, since it's minuted, it's on record").

Others found such large meetings unsatisfactory ("90 per cent say nothing: 10 per cent say a great deal and waste everybody's time. I think the way we do it is better - produce a paper through management so that people know where the parameters lie and let it filter down through department meetings"). However, the difficulties of communication in new colleges which had grown rapidly were acknowledged. Relying on information being passed via an enlarged middle management group, which included those newer to the institution, could mean "the message gets diluted...people don't put the same passion into it".

There was a recognition that people did not always welcome change and managers had to have strategies to deal with that ("People do concern themselves about change...I think it's a matter of how you present the strategies and how you ensure that people understand quite clearly what's required and feel they are capable of delivering").

The importance of consultation and the hoped-for subsequent empowerment and ownership was stressed. Respondents commented on how some staff, even though they had chosen to work in a new institution, feared change. Strategies for consultation and ownership could help lessen resistance and lead staff to feel they themselves had suggested the change ("Innovation is best achieved when you don't declare it is that...people like to think they are the instruments of change rather than the recipients of it...the manager's task is to create situations where people can, with confidence, initiate change... the great movement occurs when people, for themselves, see the better way"). Some managers were alert to the danger that, where changes were frequent and seen as part of the culture of an institution, staff might not always carry out tasks as well as they could, in the expectation that the situation would soon change again. So consultation, aimed at increasing understanding and allowing staff input, helped ensure ownership and commitment ("Make sure the change is understood...allow some tidying up of the edges, based on staff requests, so that they feel some ownership").

Respondents in new colleges noted how it had been easy to develop ownership in the original small teams of 'foundation staff', when something of a pioneering spirit obtained. Strategies

included pairing foundation staff with new colleagues and setting up an 'Aunt Sally' of a specific innovation as a magnet to draw out staff views, for staff to reshape and then own. The importance of keeping a record of both the formal and informal consultation and on feedback was reportedly useful in order to allay later complaints of lack of consultation.

Leadership, not surprisingly, was noted particularly by senior managers. The qualities of leadership they noted included: courage, flexibility and open-mindedness. Principals spoke of the importance of being able to generate excitement over innovation, of demonstrating confidence in staff taking risks - and of accepting some failures. They stressed the value of management-by-walking-about ("You need to be seen around as much as possible...willing it through and not letting them see that you are worried to death"), having confidence in their own ability to steer innovation and the courage to admit mistakes and, if necessary, change course ("If the results of review and evaluation show that some things are not working well or as well - you've got to be prepared to swallow your pride, have the courage to change"). With other senior managers, principals reported the need to keep people on target and to take a college-wide view, whatever the concerns of individual postholders. As one linemanager put it, "If you are doing something for the sake of the organisation there will be some individuals who will not profit by it... you've got to be prepared for that". Other senior managers reported that they encouraged and persuaded ("I'm not a great authoritarian but a diplomat") but were prepared to exert pressure selectively when necessary. Where postholders' performance consistently fell below par, the need to have the courage to 'grasp the nettle' and deal with incompetent staff who stymied the innovation was acknowledged. Some senior managers distinguished between the strategies needed in the setting up of a new institution and those needed in managing subsequent change ("The first, which we did very quickly, required crisis management which tends to be directive...but you can't create innovation by being directive...so the second required team leadership and empowerment").

Delegation of responsibilities was noted as a valuable strategy for empowering staff, by encouraging active participation in innovation and change. Making people accountable increased their awareness of the part they played in innovation and, overtly or otherwise, put

pressure on them to do all they could to make it succeed. The effective leader, however, had to know how and what to delegate and when to modify suggestions. Thus, one principal stated, "I try to give staff their head. But you have to be confident enough to be able to manipulate the reins on that. Let them use their initiative, that's the way to get things changed... If I suddenly say 'no - I can't see how that will work', they accept it because they know, on the whole, they are allowed to put ideas forward". The negative effects of too much delegation creating undue pressure to make innovations work were noted earlier.

Managers did not always find delegation easy. The temptation to keep control could be strong in institutions where managers were aware of the expectations on them to be innovative. One principal expressed it thus, "I'm really clear now that I've got to let those senior postholders take responsibility. I think they will be alright. It's that arrogance of letting go, wondering 'will the mess land on my desk'. But I've got to let go or I can't do the other jobs I'm supposed to do". In four colleges attempts had been made to have a flat (or flatter) management structure. Such a structure could provide opportunities for staff ("It gives people the ability to take on additional responsibilities at a fairly young age, which sets them up for the future"). However, as noted earlier, too much responsibility could result in unsustainable pressure on, or too much innovation vested in one post, or could lead to the sidelining of the innovation.

Staff development and support helped staff to recognise and accept their own or colleagues' new roles and responsibilities. Strategies reported by senior managers included overseeing an annual skills audit, a regular appraisal cycle and, for three colleges, a commitment to Investors in People, described by one senior manager as "a concrete hook" on which to hang innovation and change. Practical support for staff input to innovation, for example, by providing money for a brainstorming weekend, signalled to staff the management support for innovation ("You've actually got to invest something in it"). For line-managers, regular supervision meetings - "diaried, focused and minuted" - were a conduit for providing support and for monitoring performance. Cascading lessons from training courses or bringing in consultants for in-house staff development were also deemed effective strategies.

Innovation and change were facilitated by having a proper framework of *planning and review*, which required people to reflect on their practice and identify how to go forward. Such a process helped ensure monitoring took place and helped assess whether correct decisions had been taken, if modifications were needed and if there had been unintended consequences. Some managers reported that planning, though necessary, was not always obvious to those not directly involved - and that it should not be set in concrete. Staff needed to be aware, however, that there were mechanisms for prior planning so that, when encouraged to be enthusiastic about implementation, they could be confident "that the innovation is not random, not knee-jerk... but a building process". In one college, where recruitment had proved difficult, there was an awareness of the need for succession planning.

Managers noted the need for a positive culture and ethos, fostered by the leader, which could inspire, nurture and sustain colleagues. Respondents stressed that innovation was part of the raison d'etre of CTCs ("It's almost part of the culture of the college that things are going to change"). Echoing Chrispeels (1992), a shared ethos was deemed central to the success of the CTC mission ("The most important thing is to have a clear view with as many managers as possible and ideally with the whole institution").

Some managers were beginning to realise that their opportunism could be exploitative and that a policy on status and pay for associate staff was needed ("If you are making a change that is going to affect someone's status, you've got to do that carefully - or create something else they'll see as being equally valuable. Although it sounds silly, coming up with interesting new titles is something that seems to make people feel better"). Staff whose role involved mostly innovative ventures and little or no 'mainstream' education could lose status in the eyes of teacher colleagues. With the wisdom of hindsight a line-manager considered "Maybe we ought to have them with half of their responsibilities targeted on what is absolutely essential... and half for innovation and extras, rather than having the situation where one does all the essential school work... and another does the more esoteric work. The balance is wrong. Just to have 'an innovation brief' doesn't give enough status and also

makes the position very dodgy". One principal reported how capitalising on associate staff skills and enthusiasm had unintended consequences and raised issues of staffing priorities. He explained, "You have a situation where an individual is identified as having the technical expertise to deliver a course which none of the existing teaching staff have, who also has an interest in it, who wants to see it expanded and is very proactive....The effect is that he is now spending about 10-hours a week teaching small groups, with a knock-on effect on the rest of his technician support work...so we've got to look dispassionately in the interests not just of the technician but of the curriculum. It's a question of balance - do we appoint a teacher... or use the technician and look for a better deployment of existing technicians to cover the gap he leaves?".

In other instances, conscious efforts were made to ensure parity of esteem for associate staff. Managers stated, for example, "If you are in an institution with relations like you have here, where associate staff and teachers mix and treat each other as equals, then innovation should work". (It has been noted that, in three colleges, the salaries of some postholders had risen in acknowledgement of their contribution to teaching.)

The pace of innovation was often driven by external circumstances beyond respondents' control. This could mean uncomfortably short time scales or the crisis management noted under leadership. In other circumstances, senior managers had to judge when to initiate ("There is almost this critical path...you need to purposefully decide which areas of change should be introduced and when, and bring the maximum effort to those discrete areas"). Some managers favoured letting innovations evolve and gradually stretching postholders as needs changed. One senior manager claimed, as did Peters and Waterman (1982), that success can be the result of many small actions well done ("Its the tug boat principle...you can move great weights provided you only nudge a little and nudge a little").

Responses in the 'Other' category were that it was helpful to have plenty of young staff who were energetic and who could be socialised into the college *mores* and to have the support of governors.

5. Discussion

Several issues arise from the findings reported in this chapter. They are set out below under different headings but there is some overlap between them.

Amount of change

The amount of change between the two research visits was striking, as has been noted in Chapter 8. Perhaps it was to be expected in new institutions, as they strove to get established and to meet the high expectations placed upon them by government, sponsors, governors, parents and community. Even so, it exemplified Fullan's (1993) dictum that "Change is a journey, not a blueprint" (p 24). There were several implications of the scale and pace of change.

Managers had to be prepared for capable and innovation-oriented staff taking the experience they had gained in the CTCs to pastures new, leaving behind less risk-taking colleagues and gaps not always easy to fill - a situation which threatened the continuity of innovation. A climate of continuous change, however, ran the risk of too much being attempted - and not being done well, because more change was expected imminently and staff commitment could not match the pace. Mechanisms for planning and review helped to anticipate the probable pace of change and the potential for stress and confusion.

The demands generated by the unrelenting pace of change and the expectation of innovation spurred the opportunism evident in the further development of several posts described in this and earlier chapters. This opportunism, as has been noted, could result in the cost-effective use of associate staff expertise and in enhanced career opportunities for them. But it could leave the way open for the abuse of staff goodwill and staff commitment, by exploitative managers, which could also threaten the continuity of innovation.

Clarity

Providing too much clarity is probably not possible where innovation and change are concerned - some leaps of faith are part of the process. But if managers had thought through

the purpose of the innovation, and accepted that adaptations might be needed or that unexpected consequences might arise, some of the barriers and problems noted in this and earlier chapters, might have been lessened. Lack of clarity over status, roles and responsibilities could affect both postholders and the teachers with whom they worked. It could lead to resentment on the part of both postholders and teachers and could mar, or even reverse, an innovation.

Communication

Sustained and systematic communication was crucial in fostering shared meanings about innovation, in clarifying expectations of a new post, or in explaining why some grey areas were unavoidable, to be expected, or even, in certain circumstances, to be desired.

CTC culture

All these issues relate, in some degree, to the culture of the institutions and the different groups within them. In many respects the CTCs represented a new kind of educational culture - one in which innovation and risk-taking were expected and encouraged and where traditional ways of apportioning responsibilities and assigning roles were being challenged. The small 'foundation' staff groups in new colleges had often developed a new, shared culture. That culture could be harder to sustain as staff numbers grew and pressures increased. (One postholder reported that "We started from scratch in a small team of fifteen...there was great optimism and team spirit - a 'buzz'. Now the momentum has slowed... its harder to get things done ... its more hierarchical and bureaucratic".) As noted, too much pressure to innovate could lessen effectiveness and commitment. Furthermore, many of the management and teaching staff had come from traditional schools and a minority, particularly in the 'evolved' CTCs, had entrenched views about the division of labour and relative status - views which could stymie innovation. The associate staff brought with them a range of attitudes and mores from disparate work cultures which did not always merge with, or peacefully co-exist with, the culture of schools. The issue of culture will be returned to in the following chapters.

Generalisability of innovative associate staff posts

If one were starting with a clean slate for the design of the structure for a new school, would the findings reported so far be of assistance in drawing up proposals for the use of associate staff? With the information contained in this chapter on change, barriers and management techniques, and reflecting on the cost-effectiveness judgements in the previous chapter, it is possible to make some tentative generalisations about what kinds of posts might stand the test of time and succeed (and vice versa) and about the kinds of circumstances or strategies which might facilitate that.

Innovative posts seemed to have more chance of lasting and of succeeding if: there was a clearly defined need for their skills; they took tasks from senior teachers, thus allowing them more time for planning and management; and if they took tasks from teachers, thereby allowing them more time for their teaching and curriculum roles. It was noted in Chapter One how much time teachers spent on tasks other than teaching (Campbell and Neill, 1991). For success, all parties need to be realistic and reasonable in their expectations of the post and of the incumbent and aware of not widening the scope of the post to unreasonable proportions. This should lessen the risk of exploitation of associate staff and avoid raising hopes which are unlikely to be met. It also seems important that the potential benefits of the posts to their own role is communicated to teachers and that they receive some guidance on how to manage and how best to use associate staff. Teachers might then delegate with less fear of their territory being encroached upon.

If mechanisms are established for the induction of postholders into the mores and expectations of the school (for example, the procedures for associate staff regarding the disciplining of students) confusion in this area might be avoided. Mechanisms are also needed for support and, if appropriate, the further development of innovative staff roles. This is particularly important if associate staff are to be involved in working directly with students.

All these points will be easier to achieve if schools are able to recruit capable staff and give them adequate pay and status. Last - but perhaps most important of all - is the creation of an institutional culture which supports, rather than resists, the concept and use of associate staff.

Where the converse of these conditions obtain, problems and failure are more likely to be outcomes. Thus, situations where managers or teachers are not committed to the innovation; where teachers do not understand the purpose of the post or are out of sympathy with the postholder; where all parties hold unrealistic expectations of the post (or the incumbent); where unreasonable pressure is placed on the postholder; where there is a clash, or a lack of synchrony, between the culture of the college and the culture the postholder brings to the school, new kinds of posts will seldom flourish.

In the following chapter several of these issues will be related to the conditions deemed important for innovation and change by Gross et al (1971) and Fullan (1991).

Chapter Ten

THE RELATIONSHIP OF THE DATA TO TWO THEORIES OF INNOVATION AND CHANGE

Introduction

One of the objectives of the research was to test to what extent the staffing innovations fitted the theories of change propounded by Gross et al (1971) and Fullan (1991). The data in this chapter which test the theory of Gross et al are amplified from information summarised in the ESRC report. Most of the data which test Fullan's theory, and the discussion of culture, are presented here for the first time.

The chapter has four sections.

- 1. A summary of the findings of earlier chapters on processes and outcomes
- 2. An application of the theory of Gross et al (1971) to the data
- 3. An application of the theory of Fullan (1991) to the data
- 4. Discussion of the congruence between the theories of Gross et al (1971) and Fullan (1991) and the findings of this study.

1. A summary of the findings of earlier chapters on processes and outcomes

The establishment of CTCs was a national policy initiative which led to the creation of new institutions with a brief to innovate and with greater freedom over whom they could employ to teach. This study is concerned with only one aspect of the policy initiative - innovation in the use of staff who were not trained teachers (associate staff). The preceding chapters have looked at the *processes* involved in the innovation - the establishment of 32 posts - at the subsequent *outcomes* and at a number of issues arising from the investigation.

Briefly, the *processes* included the genesis of the posts and the stages in the introduction of innovation and change; the identification of facilitating conditions or helpful strategies; and the converse - the barriers which hindered innovation; the durability of the posts and the

incidence of, and reasons for, subsequent changes to them.

The *outcomes* were the perceived benefits of the innovative posts; their cost-effectiveness; problems or disadvantages encountered in their implementation, and subsequent changes. Many of the outcomes, particularly the benefits, were intended and had been anticipated in the colleges' detailed planning. In some cases, however, benefits had exceeded expectations. In other cases, outcomes were the result of the modifications made in the course of implementation. The data on change over time illustrated that modifications had been made in order to increase the likelihood of benefits. Unintended outcomes (some of them negative) had occurred where expectations of posts or postholders had not been met or when changing circumstances affected the operation of a post. The *benefits* of the innovative posts were not evenly spread: some posts benefitted one group or one aspect of college life more than others. Benefits included better learning opportunities for students provided by a combination of (teachers') academic and (postholders') commercial or industrial expertise. Almost two thirds of the posts were judged, overall, to be *cost-effective*. Fewer *problems* than benefits were perceived in relation to the posts. Those that were reported reflected some of the barriers noted earlier.

The rest of this chapter assesses the extent to which this empirical study of city technology colleges supported the theories of Gross et al and Fullan.

2. An application of the theory of Gross et al (1971) to the data

In this, and the following, section of this chapter the extent to which the data fit the theories of innovation and change put forward by Gross et al and by Fullan will be assessed. Reference will be made to the summaries of their theories in Chapter One. There is some repetition between Gross et al's theory and that of Fullan. To avoid too much repetition in this chapter, points which have been made by, or in reaction to, the one author and which also apply to the other, will be noted but not discussed in as much detail when dealing with the second author.

Chapter One summarised the argument of Gross et al that the degree to which innovation would be implemented successfully would depend on the extent to which five conditions were met. For the purpose of this thesis, Gross et al's work enabled five assumptions to be made:

- that the criterion of *clarity* would be met through the legality of more flexible recruitment practices in CTCs
- that the criterion of *capability* would be met, through the ability of colleges to hire staff, appropriate to meet staffing needs, from outside education
- that the *resources* for innovations would be available because CTCs were relatively well funded and not constrained by national agreements on salaries
- that the criterion of *compatibility* would be met, through the lack of pre-existing structures or traditions
- that the criterion of *commitment* would be met through voluntary self-recruitment to novel and well-funded institutions.

Clarity

It is evident from Chapter Four that, with one exception, all the CTC principals knew that they had the freedom to recruit people from outside education to teach. Managers and governors had used this freedom, albeit with limited success in some instances. Others reported greater satisfaction with the flexibility and had plans to extend their use of associate staff. The existence of clear boundaries around posts was noted by one third of respondents, along with the consequent advantages and disadvantages. Half the respondents, however, reported 'grey areas'.

In order to assess further the clarity of the innovatory posts, a series of questions were put to the following groups: postholders were asked what they knew about the post before taking it on; postholders, teachers and line-managers were asked to list what they understood to be the purposes of the posts; and postholders and line-managers were asked how they communicated with each other and about which meetings postholders attended.

Prior knowledge of the post

The responses of postholders are presented in Table 10.1.

Table 10.1 Prior knowledge of innovative post

Source of information	Number	%
Little/no prior knowledge	9	31.0
Info. from job description	8	27.6
P/h initiated post	5	17.2
P/h already at CTC	4	13.8
P/h knew staff at CTC	3	10.4
Total	29	100

N = 32 Missing=3

It is clear from Table 10.1 that the largest single group, almost one third, of postholders (31%) reported they had very little, or no, knowledge of their posts prior to taking them up and they described, for example, being "thrown in at the deep end". The remaining two thirds reported different ways in which they had learned what would be expected of the post.

Over a quarter (27.6%) had relied on job descriptions, although these were often considered to be "deliberately vague". Respondents were told "The college is growing... bits and pieces will creep in as directed by your line-manager" and reported that "We fleshed out the bones as we went along".

Reflecting the criticisms of the CTC pilot programme noted in Chapter One, the building and opening of most of the colleges had been attended by considerable publicity, some positive, most of it hostile. In either case, local parents and other members of the community knew of the CTCs and some had used the public meetings or promotional materials to find out more. Five individuals (17.2%) had initiated the post themselves, by writing to offer support or expertise ("I more or less defined the job"; "I sold it to the college"). Two were parents of prospective students, keen to make their own contribution to the success of the new colleges.

Some offers were taken up immediately, others were put on file and activated later when needs became clearer. The five all had skills and experience (mainly technical) gained outside education which were expected to be of value to the managers of the new institutions who, in turn, were prepared to take some risks with staff untried in an educational milieu.

In four (13.8%) cases associate staff were already employed at the college and saw, or were offered, the opportunity to develop the new post because they had demonstrated particular interests or skills, valuable in meeting new staffing needs ("I shaped it with my line-manager...I had a vision of what the post could be"). There were examples of the both the opportunism of managers and the opportunities offered to associate staff, to which many references have been made earlier in this thesis. Three postholders (10.4%) knew staff who worked at their respective CTCs so had acquired from them information about the institutions.

Perceived purposes of the posts

Whereas all postholders and over three quarters of line-managers were able clearly to outline the purposes of the posts, teachers' responses revealed gaps in their knowledge: a third did not mention some of the postholders' main responsibilities, as reported by the associate staff and as set out in job descriptions. These omissions could have been because teachers worked closely with postholders on only one or two aspects of what could be multi-faceted roles.

Communication between associate staff and other staff

Communication between line-managers and postholders and between postholders and teachers, and postholders' attendance at meetings across the college provided, if necessary, opportunities for any confusion over the innovative posts to be clarified. The results are set out in Tables 10.2 and 10.3.

Table 10.2 shows there were some discrepancies between line-managers' and postholders' reports of their most usual form of communication. Almost a third (31.3%) of postholders, but only a quarter of line-managers, reported holding regular, formal (that is, diaried and

minuted) meetings: 40.6 per cent of associate staff but only 21.4 per cent of line-managers reported informal, *ad hoc* meetings.

Table 10.2 Usual form of communication between postholders and line-managers

Form of communication	Line- manager*		Associate staff**	
	Number	%	Number	%
Regular formal 1:1	7	25.0	10	31.3
Irregular formal 1:1	7	25.0	4	12.5
Informal, ad hoc	6	21.4	13	40.6
Regular, as part of team	6	21.4	1	3.1
Memo/e-mail	2	7.2	4	12.5
Total	28	100	32	100

^{*} N=28

Table 10.3 shows considerable consistency in reports of a range of meetings attended by postholders (with the rank order following roughly the same pattern for line-managers.)

Associate staff reported most attendance at the different kinds of meetings (106, an average of 3.3 per respondent); line-managers noted fewer (72, an average of 2.6 per respondent). Attendance at full staff meetings (usually held only once or twice a term) was the most reported, reflecting comments made by senior managers about developing a whole-school or team approach amongst all staff. The less-noted attendance at the frequent staff briefings, which usually took place first thing in the morning, was due in part to the fact that those associate staff whose work involved monitoring registration, premises supervision or parent liaison would not normally be free at that time. Associate staff who reported attendance at team, department or faculty meetings or parents' evenings to discuss students' progress tended to be those involved in supporting the curriculum.

^{**}N=32

Table 10.3 Meetings attended by postholders, as reported by them and their line-managers

		Line-	manager*	Associate	staff**
Rank	Type of meeting	Number	% of 72	Number	% of 106
1	Full staff	16	22.2	24	22.6
2	Section/team	13	18.1	14	13.2
3	Parents	9	12.5	9	8.5
4	Other assoc.staff	8	11.1	12	11.3
5	Dept/faculty	8	11.1	14	13.2
6	Staff briefing	7	9.7	13	12.3
7	Open evening	5	6.9	8	7.6
8	SMT	3	4.2	5	4.7
9	Governors	2	2.8	1	0.9
10	Other	1	1.4	6	5.7
	Total	72	100	106	100

^{*}N=28

More than one response possible

The minority of postholders who reported that staff (usually teachers) did not know about, or understand, their work were more likely to be those whose role involved spending most of their work time in their own office, off-site, or with outside agencies or who worked in colleges with little or no common free time in which to socialise and exchange information with colleagues. Some postholders reported the lack of a mechanism for informing teachers about their role. Others, whose roles involved some teaching, did not fit neatly into teams or faculties so did not always attend the relevant meetings. (It has already been noted in earlier chapters that, where the roles depended, in part, on the goodwill and co-operation of teachers and involved negotiating teachers' input to postholders' tasks, lack of clarity and understanding could be a problem.)

Comment

The data suggest that Gross et al's criterion of clarity was only partially met: the situations

^{**}N=32

in the colleges were complex. Senior managers were clear about their employment flexibility. Only a minority of postholders, however, had prior knowledge of their post or had regular meetings with their line-managers and their job descriptions were not always accurate. Teachers revealed gaps in their understanding of the purposes of posts. For managers running new institutions, the 'deliberately vague' job descriptions had advantages, allowing them valuable scope in what they could reasonably demand of postholders, in situations where it was not always easy to decide in advance what would be needed. Moreover, some associate staff enjoyed the flexibility of new posts for which there were few parameters and in which they were encouraged to try out new ways of working. There was, however, a negative side to lack of clarity. As noted in previous chapters, there was the potential for the exploitation of willing staff with weak boundaries to their posts or for managers to take an undue time to sort out problems arising from tensions or confusion over unclear responsibilities. Lack of clarity was reported as a problem in Chapter Seven, particularly in relation to two insufficiently thought-out posts. It was also noted as a barrier in Chapter Nine, in connection with teacher' lack of understanding of, or resentment towards, some of the innovative posts. All these instances could limit the success of the innovation.

'Clarity', however, may not have held the same 'meaning' for CTC staff as it did for the teachers in Gross et al's sample - or, indeed, for contemporary British teachers, who may expect a great deal more clarity than their US counterparts. The prescriptive nature of the national curriculum, modern approaches to teaching and self-directed learning, and expectations about accountability may place a higher premium on clarity. Furthermore, should 'clarity' apply to the innovation or to the rationale for it? The rationale may not be, and may not need to be, totally clear to all the participants. But, arguably, it has to be clear to management who also need to be aware that, once launched, participants in the innovation will be entering uncharted territory. The innovation may not stay clear for very long: action may change the situation and what was clear before may not be so subsequently. Indeed, it is probably contradictory for an innovation to have complete clarity. As Huberman (1992) argued, "The action itself will qualitatively change the situation in ways that can tell us how to plan. At the same time, we will be at another place, cognitively speaking, than we were

before we took the next step". (p 9) 'Clarity' by itself may not be particularly important. If everything else works, then a lack of clarity amongst some of the staff would be unlikely completely to undermine the innovation. It could, in some cases, allow for adjustments in what are, by definition, unknown situations, and could permit the risk-taking which can spur innovation. Where lack of clarity was allied with other negative circumstances, in some of the examples described in earlier chapters, then the success of the innovation was threatened.

Capability

When asked whether associate staff were capable of meeting the demands of their innovative post, two thirds of respondents answered positively (Table 10.4.) Over two thirds of managers and teachers described postholders as being capable ("He has worked outside, he brought skills to the job, the job was built on his skills, not vice versa"), whilst one principal added "They would not be here today if they were not capable". Some qualified their comments with remarks about the management implications ("Like everyone, she needs to be managed. Its my job as line-manager to draw out her talents").

Table 10.4 Perceived capability of associate staff

	SMT	Line-man.	Teachers	Assoc. staff	Total	% of 104
N	20	28	27	32	109	100
Yes	12	21	16	24	73	70.2
No	2	2	0	3	7	6.7
Other	5	4	3	4	16	15.4
D/kn	0	0	6	0	8	7.7
Total	19	27	21	31	104	100*

Missing=5

Several associate staff expressed pleasure and surprise at what they found they were able to do ("I was stretched here - amazed at how much I was capable of"). Six, however, reported initial apprehension or anxiety over there being no ground rules or precedents to fall back on ("Looking back, I had serious butterflies at first - not knowing what to expect - but I

^{*}Figures rounded

The lack of capability of postholders was referred to, or admitted by, a small minority (6.7%). Managers queried the capability of associate staff in two posts which had occasioned frequent negative comment, noted in the earlier discussions of problems and of cost-effectiveness. Associate staff who reported self-doubt included one who said he did not feel equipped to meet the educational element of his dual IT post and admitted he "runs away a little" from it. Another had been confident before he started but had found the reality very different ("I'm not doing the job I came to do"). It is worth noting that, in these instances, lack of clarity surrounding a post impaired the postholders' capability to perform well.

The varied "Other" responses illustrated the ambiguous views expressed by some respondents or the anxiety over whether other postholders could meet expectations in a different milieu ("He's used to financial planning, unlike some middle managers, but he's not used to dealing with teachers, but rather with sales people"). Such differences in the work cultures of teachers and of other staff not from an educational background, also noted by Whitty, Edwards and Gewirtz (1993), called for negotiation and patience on the part of line-managers and postholders ("Initially his perceptions of a CTC were of a place more akin to business than a school. Over time his perceptions have changed").

Cultural differences were also prominent in the comments made by the two thirds of the postholders who reported that their current job was a great change to what they had been doing before. Thus, one commented on the "phenomenal change - the language was so different" and another had experienced "a total and utter culture shock...there is a different discipline... a different way of working". Adapting from a business to an educational culture was described by an IT manager. He had come from a commercial setting where his prime object had been "to maximise profitability, dressed up as customer care, ie. tangible and short term rewards" whereas, in the CTC, "the measure of success is satisfaction, happiness and the learning of all the students, ie. intangible and longer-term rewards".

Managers undoubtedly were able to take advantage of the freedom to recruit appropriate staff from outside education but, as noted earlier, this freedom did not always result in appointments of those with sufficient capability and had led, in some instances, to modifications to policy or practice, reflected in the 'No' and 'Other' categories of responses. The few negative comments were mainly in relation to staff in CTCs which had evolved from former schools. Some 'inherited' staff were perceived not always to have adapted well to the new CTC culture and were considered less capable, less amenable or more limited in outlook. Ironically, postholders' capabilities in taking certain responsibilities off teachers appeared to have made some teachers feel de-skilled or, as Ouston's work indicated, less in control of the knowledge being transmitted (Ouston, 1990).

Comment

Overall, Gross et al's criterion of capability of those people involved in the innovation appeared to have been met. In the minority of cases where it was not, postholders had presented the problems noted in earlier chapters.

Gross et al assumed that 'capability' can easily be judged. Arguably it cannot, for it is about potential as well as recorded skills. In an innovatory situation, people who are benefitting from the new order may develop various capabilities as they respond to new challenges or they may find ways of shaping work situations so as to accommodate their strengths and conceal their weak points. Moreover, the scope for postholders to demonstrate capability may be enhanced or limited by other factors, such as the clarity of their role. The perceived lack of capability of a minority of postholders, therefore, could be due such limiting factors, to them not adjusting to a different culture or to their unwillingness to deal with the new situation.

Gross et al focused on individual capability but the capability of *institutions* to work differently is less clear cut. The innate conservatism of institutions is well documented (Peters and Waterman, 1982; Ruddock, 1991). Even in the CTCs, colleges established to be innovative, most of the teachers (who comprised the bulk of the staff) had come from

traditional school settings and two colleges had taken on staff from the former maintained schools. Whitty, Edwards and Gewirtz (1993) noted that teaching in the CTCs "very rarely departed from the well-grooved channels of teacher-centred interaction". (p 119) In the research reported in this thesis, those holders of innovative posts which supported the curriculum were, as Whitty et al also pointed out, "as constrained as any other state-funded school by the national curriculum". (p 179)

Availability of resources

Under the constitution of CTCs a proportion of their start-up costs was met by industrial sponsors. Many of the original sponsors had continued to provide additional resources in cash or kind, although some insisted on colleges and parents' associations matching their input, in order to "keep the college on its toes" and to avoid sponsors "being treated like fairy godmothers". Sponsors' generosity had enabled some posts to be equipped directly or indirectly (by freeing up resources).

The majority of respondents reported that resources were not a problem, particularly in the early days of the CTC, a view reflected in earlier comments on cost-effectiveness. Respondents frequently commented on their more fortunate level of resources ("It's sad that all schools don't have it") and were aware of the responsibilities that went with it ("CTCs have been given a lot of money so we have to do research and development and come up with, and try out, new ideas").

Senior managers were not tied to national agreements on salaries. This meant they could, if they wished, pay as little as the market would bear - or as much as it took to attract the right person to the job. Two principals reported, however, that the initial freedom had created problems so that staff were now paid close to nationally-agreed scales (the case in most colleges). Senior managers reported sufficient resources for posts being earmarked in the initial planning process, being "built into the growth programme" or being provided in response to the recognition of a new need.

Some managers reported teachers' resentment at the cost of some postholders' salaries or back-up resources. The resentment was attributed to the fact that people did not appreciate the range of tasks CTCs had to take on from LEAs. Adequate, or even generous, resource levels did not necessarily make for problem-free innovation.

Comment

Where posts were deemed successful and /or cost-effective, resources for them were unlikely to be seriously threatened. However, not only were levels of resources liable to change, the situations in which innovative posts operated could also change. Posts that were deemed valuable, even essential, in new institutions could become less crucial as the new colleges became established and reached their full complement or as uncertainties and hostilities lessened. In such circumstances, a re-assessment of cost-effectiveness or priorities could result in a reduction in the resources allocated to a particular innovation. Moreover, where there were problems with a specific post or postholder, a squeeze on resources could place under threat some innovative posts, not part of the mainstream provision, vulnerable to being seen as an irrelevance or an extravagance. By the second interviews all colleges reported being under some financial pressure, which created insecurity over the small number of posts deemed problematic.

Overall, however, it is clear that Gross et al's stipulation regarding resources for these staffing innovations was met. By any measure these colleges were well equipped to implement the innovations. Furthermore, many of the posts were cost-effective and thus enabled better use to be made of available resources.

Six of the eight colleges were newly-created institutions, although not necessarily new by the time the interviews were conducted. The innovative posts varied from those that had been planned and budgeted for from the colleges' inception, to more recent developments. Accordingly, the age and flexibility of the organisational frameworks within which the posts had to fit, varied from college to college. Thus, in the two colleges which had evolved from former schools, whilst arrangements did alter with the change to CTC status, many features

of the old remained, at least in the short term.

The majority of the senior managers (but proportionately fewer principals) and line-managers, reported that the posts were compatible with existing arrangements or, where they had coincided with the start of the college, had evolved in concert with them. Some posts formed "part of a package - a result of setting up a new structure". In the brand new colleges most posts fitted in well, "because we were a new organisation and still growing".

Principals, however, were amongst the minority reporting that some posts did not fit in well. They reported that some line-managers' and teachers' responsibilities had to be re-assigned, communication structures and meetings' schedules altered, roles and responsibilities clarified, all of which involved senior staff in discussions to ease tensions or unhappiness.

Even where new posts were not compatible with the current organisation, this was considered less of a problem in those colleges where restructuring was accepted and had already taken place ("People shed tasks they had taken on earlier"). Six of the eight colleges had undertaken some re-structuring during the course of the study. At first this may appear surprising in colleges created from new, which had not had to incorporate former staff, structures and students. However, those responsible for the brand new colleges were taking what two senior managers called "a leap of faith" in opening not just new institutions, but new institutions with far greater financial and operational autonomy (and thus broader responsibilities) than their LEA peers. Most had opened with small student numbers and with a small staff group which included a relatively large number of associate staff, necessary to undertake the wide range of responsibilities, many of them new. In such cases, there was a recognition that organisational structures would have to adapt as the college grew. As the student cohorts reached their complement, and particularly as they approached the post-16 options, colleges had to consider whether and how their initial structures and the posts within them needed to change. With regard to some posts, it was acknowledged that, if the current postholder were to leave, the post might need to be renegotiated with a new incumbent with different strengths.

Comment

On the whole, Gross et al's criterion of compatibility was met: there appeared to be sufficient compatibility between the organisational arrangements of the institutions and the innovative staffing policies. Compatibility was fostered where there was an acceptance that initial structures needed to be fluid and were likely to change with changing needs. There were some examples, however, already noted in Chapters Seven and Eight, of incompatibility between those staff, mainly teachers, who wanted to retain familiar ways of working, and associate staff whose brief altered current practices or traditional roles. The ensuing tensions limited the successful operation of those posts.

Commitment

There was considerable evidence of postholders' commitment, acknowledged by almost all senior managers and line-managers. The latter, who saw the associate staff in operation on a day-to-day basis, were particularly positive. Numerous testimonies were given of postholders' dedication and energy directed towards making a success of the college. Respondents reported that postholders worked long hours, even when the normal working week and year were already extended; came in voluntarily during vacations; and were flexible and willing in response to requests for help from staff or students. Many were judged to have caught the energy and enthusiasm of the new institutions and were, in the words of one principal, "on an upward spiral", the maintenance of which he saw as a major responsibility of senior management. The range of positive responses was encapsulated in the description of postholders by one senior manager: "They work from 8 am to 6 pm and go out smiling...it's this place...people are made aware that they are sharing in a culture that is treasured. That comes from the Principal. Staff are identified who want to enhance and not conflict with the culture". Critical comments came from only a small minority (3%) of respondents. (Reference was made earlier to the fact that respondents may have been unwilling to voice criticisms of their new institutions).

Postholders themselves were asked whether their post had called for more time and effort than they had anticipated. Over three-quarters (78%) said 'Yes' and two thirds of them voiced

additional, though positive, reactions to the unexpected demands. They reported welcoming the challenge and the job satisfaction accompanying it ("I didn't resent the time and effort...the job is very fulfilling"); that new challenges were constantly arising; and that they were too busy ever to be bored. A third of this positive group, however, added some reservations about the unexpected demands of the job and the level of commitment required. Thus, one stated "I started out willing to do anything because I was desperate for this CTC to succeed...now I sometimes feel used and resentful... I have made a rod for my own back". Those who had expected to demonstrate such commitment reported that they had come "open eyed, we all knew it would be a challenge and would take time".

Comment

The generally positive responses on postholders' commitment indicated a sense of them being part of a shared culture, of being engaged in an exciting and challenging new enterprise. Whilst, as has been noted before, there may have been a reluctance to rock the boat, such a small number of negative responses leaves little doubt that the majority of the 32 innovative postholders were committed to the innovation, as were the majority of managers. The opportunity to innovate had been what attracted many managers to the CTCs in the first place. The views of other teaching staff were more variable. Although many were positive about the associate staff posts, what criticisms there were tended to come from this group of respondents who felt threatened or deskilled by, or resentful of the cost of, the new posts. Overall, the criterion of commitment of Gross et al was met. Commitment undoubtedly contributed to the success of a post but where other factors, such as undue pressure or exploitation, were also present, success could be threatened.

To sum up, the five conditions identified by Gross et al were all met, in varying degrees, by the innovations embodied in the 32 posts. Some 'shortfalls' or reservations have been noted which limited the success of some posts. Life in modern schools and colleges is probably too complex for all participants in an innovation or for all aspects of an institution, completely to meet such criteria.

2. An application of the theory of Fullan (1991) to the data

This section makes reference to the summary of Fullan's theory of innovation and change, set out in Chapter One.

Meaning

In Fullan's view, a major shortcoming of Gross et al's theory was that it failed to take account of what he terms "the problem of meaning" and of "how people actually experience change". (p 4) An attempt was made in the CTC research, therefore, to identify directly respondents' interpretation of this concept.

Over a third of respondents (35%), including almost half the postholders, interpreted the 'meaning' of the innovation, as symbolising an institution trying to be mould-breaking and innovative ("That's why I came here - to innovate - for new and exciting educational practices"; "I'm an innovative person so I fit into this place like a round peg in a round hole"). For these respondents a lack of innovation would have been odd ("We always emphasise we are innovative"). For one fifth of respondents 'meaning' was interpreted as flexibility and freedom in how staff were used. Being part of a CTC was "liberating in terms of the creative potential" and what managers could do with it; staff were offered a greater variety of roles; initiative was encouraged; talents were used; and all staff were valued ("The culture of the college is such that people work together").

The culture of innovation and the encouragement of initiative explicitly fostered feelings of ownership, which is how 14 per cent of respondents understood 'meaning' ("Everybody who works here wants this place to succeed"). Such sentiments might explain, in part, the relative paucity of criticisms noted earlier. One in ten respondents took meaning to be establishing a stimulating environment, the provision of a better deal for students, or giving them access to high quality equipment, training, qualifications and progression ("We are trying to develop an educational environment that will improve the lot of the students and the people who live in this area"). One senior manager pointed out that the different positions of people in the school hierarchy probably influenced their understanding of

innovation ("The gaps are always there because people have different perspectives. What are important things for me in the institution are not the same as for people who spend 20-25 periods a week teaching").

A small number of respondents remarked that innovation was a relative concept and the meaning it held in a 'greenfield site' CTC, with a wholly new staff group, would differ from the meaning it held for 'evolved' colleges with several 'inherited' staff.

Not all interpretations were positive. For a minority, the meaning of the innovations centred on: the flexibility of a post which gave the postholder a carte blanche resented by teachers; the potentially exploitative demands of a dual role "too big for any one person"; the rapid expansion of the college which ended up threatening innovation; and management's encouragement of risk-taking which provided a convenient tool for exerting undue pressure on staff to innovate ("It's a wonderful system for making people work").

Comment

'Meaning' will always be difficult to investigate because it is such a personal construct. A direct question elicits answers but, unless respondents are used to articulating abstract ideas, the responses can often be difficult to interpret. Furthermore, the interviewer may misinterpret the sense of the answer and his or her own 'meaning' of what the respondent has said may, therefore, be faulty. Nevertheless, in institutions where there was an acknowledged culture of innovation and where the corporate aims were broadly accepted, it seemed likely that the personal meaning, for many staff, was indeed bound up with a commitment to ground-breaking approaches. In a few cases a negative, exploitative meaning was ascribed to the meaning of the innovation.

Fullan's four stages of change

In Chapter One Fullan's four stage theory of change, in which he identified four phases with associated factors and processes, was described. The stages were: initiation; implementation; continuation; and outcome. The next section of this chapter tests how the data which

emerged from the CTC study matched the first three of these stages.¹

i) Initiation

Fullan's eight factors associated with the causes and processes of the first phase - *initiation* - were described in Chapter One. They will be taken in turn and their relevance to the initiation of the 32 posts commented upon, drawing on data from previous chapters.

a) Existence of, and quality of, innovations

Fullan amplified this point with the example of the school textbook industry and the limitations imposed on it by the need to appeal to a wide market. With regard to CTCs, the market played a different role. The colleges' special conditions and their advantageous funding made them attractive in the education market - seven of the eight were oversubscribed. It was not possible from the data to know whether parents had chosen the CTCs because of their generally better resources and facilities or because of the perceived curriculum innovations or other reasons. Whitty, Edwards and Gewirtz (1993), however, maintain that "what parents emphasised was more often the orderliness of the school and the happiness of their children than those intended innovations in curriculum or teaching". (p 126) Moreover, the market climate had encouraged, in three CTCs, the establishment of four of the 32 posts which had as part of their brief the fostering of entrepreneurial activities in the colleges (such as, marketing training courses and materials and 'selling' services). In these CTCs the market had fostered, rather than hindered, innovation.

b) Access to information

Fullan talked about the role of personal contact in disseminating new ideas. Twelve of the 32 postholders had put themselves forward for actual or proposed posts in the new CTCs on the basis of information about the new colleges gained from publicity materials, because they already worked in a different capacity in the CTC, or because they had personal contact with other staff. Senior managers, therefore, had access to information about the individuals concerned. In three cases senior managers, acting on information about, or first hand

¹The fourth stage, outcome, is not developed in the same detail by Fullan.

experience of, specific individuals from outside the CTC, had asked them to apply for posts needing IT or vocational skills. In these instances (about half the total number of posts) access to information was relevant.

c) Advocacy from central administrators

Fullan's third factor hardly applied to CTCs which, by their nature, tended to be cut off from local authorities, most of which had not supported the setting up of a new CTC in their midst and had not been involved in initiating posts. In two cases Project Managers ², themselves appointed by the CTC Trust (the central advisory and co-ordinating body for the new colleges), had suggested that people who had assisted in the setting up of the new institutions stay on in newly-created posts. In relation to the initiation of innovations reported here, however, with the exception of one premises-related post, this factor was not relevant.

d) Teacher advocacy

Only one classroom teacher had been involved in advocating any of the innovations in the deployment of associate staff. (When attempting to get personal and social education courses developed she and her team had invited involvement from associate staff colleagues and one postholder had "brought his skills to the development of the modules of work"). More linemanagers, however, had highlighted a specific need for particular expertise (for example, in IT or video editing). The five postholders who had put themselves forward to the colleges and helped devise their innovative posts could perhaps be seen as 'staff', if not 'teacher', advocates. This factor, however, appeared to have had only a slight influence on initiation.

e) External change agents

2

The CTC Trust, to some degree, acted as a change agent to the colleges but had not been involved at the level of the initiation of any of the 32 posts. This factor was only relevant in the case of one post, an IT manager. The postholder had acted as trainer and consultant to

The Project Manager of a CTC had a major responsibility for raising sponsorship and for seeing through the project from inception to opening. The role should not be confused with one of the 32 'focus' posts with the title 'projects manager'.

one CTC and had demonstrated to senior managers the scope for the development of IT in the college. The Principal was sufficiently impressed to ask him to apply for a senior IT post ("I realised he had everything we wanted...it was clear he was the ideal person to take us further (in IT)... it is difficult to find people with the experience to do the job"). Overall, however, this factor was scarcely relevant.

f) Community pressure/support/opposition/apathy

Community-related concerns had played a part in the initiation of seven posts. Hostility from the LEAs in which some new colleges were sited, and the attendant negative local media coverage, had influenced the introduction of three posts. Two were parent liaison posts with a specific brief to inform and support parents prepared to take the risk of sending their son or daughter to an untried institution, often against the advice of primary school staff or local authority personnel. The third was a senior postholder with a PR brief as part of his role. Four other posts had promotion of community links or the provision of vocationally-oriented training courses for the community as part of their raison d'etre. This factor, therefore, played some part in initiation.

g) New policy and funds

All the posts had resulted, indirectly, from the Government's policy to introduce CTCs with the financial support of industrial sponsors. The colleges' financial autonomy, freedom from LEAs and the need to form links with industry necessitated the creation of finance, administrative and premises-related posts. The technological thrust of the curriculum and the expectation that there would be curriculum innovation in science, technology and information technology, plus the freedom to employ people without formal teaching qualifications to teach in certain subject areas, had influenced the development of resources and information technology managers, teacher/ technician and technician/ tutor posts, and video and film specialists. Funds had been available for the new posts, even though resources were coming under pressure by the second round of interviews. This was the factor most relevant to the initiation of the 32 posts.

h) Problem-solving and bureaucratic orientations

This factor possibly operated in a rather different way to that suggested by Fullan. Local authorities (school districts) were unlikely to welcome CTCs as a means of obtaining additional funds but the two colleges which had been LEA schools may have been influenced by such expectations. Indeed, reference has been made to staff expectations of what one senior manager termed "the CTC bonanza". This factor probably also influenced the decision to develop those posts with a PR role in fostering a positive image of the CTC. It certainly applied to those posts which gave rein to senior managers' opportunism to use associate staff skills flexibly to ease problems of staff or skill shortage, or to capitalise on postholders' specific backgrounds. Overall, this factor played an important part in initiation.

Comment

Of Fullan's eight initiation factors, three were not relevant, three were relevant in up to half the cases and two (numbers vii and viii) had considerable significance. Where factors did not apply this could have been because the institutions and the genesis of the posts in the CTCs were very different to schools in North America, the source of most of Fullan's evidence. Moreover, Fullan wrote mainly about teachers and about district-wide reforms, whereas the focus of this study was on staff other than teachers and on internal, college-specific innovations.

Initiation factors identified from respondents in the CTC study could be described as, predominantly, 'need' (to take on LEA responsibilities, or to support the CTC mission in science and technology); 'opportunism', when staff revealed unexpected skills or were willing to be flexible over what they undertook in the new and growing institutions; and, to a lesser extent, 'restructuring', when it became obvious that earlier organisational arrangements needed to be re-thought.

Initiation process

Fullan maintained that, interacting with these factors, were the three components of the process of initiation (also termed 'planning for adoption'). They were: relevance

(practicality plus need); readiness (capacity plus need); and resources (availability). 'Resources' (described as both a factor and a process) echoed Gross et al.

In the CTC study, respondents were asked about the genesis of the posts and about subsequent processes. The responses indicated that the process of initiation of the 32 posts could include any or all of four stages:

- original idea
- planning
- consultation
- training and staff development.

Original idea

Where posts had been developed as a consequence of wider college changes, the original idea was likely to have come from principals or other senior managers. In most cases, as noted above, perceived need, in the light of the CTC status and mission, was behind the initiation of posts. Principals, unsurprisingly, were involved in, or consulted about the suggestion for every post.

Planning

Involvement in planning processes was reported by half the senior managers but by only a third of line-managers. When colleges were new and not all managers were on site, but were appointing postholders prior to the CTC opening, planning sometimes appeared to have been rather ad hoc. Where the college was already in operation, examples were given of programmes of meetings between middle and senior managers, of informal lunches with managers for staff making an input to the innovation ("to share knowledge and take the sting out of things") and of senior managers attending relevant departmental meetings.

Consultation

The extent of consultation varied from college to college and according to the stage of development of the institution and the perceived status or range of the post in question. For

the more senior of the 32 posts, principals had consulted with their SMTs and, in four cases, with a sub-group of, or individual, governors, although final decisions usually rested with principals. (The exception was the director of finance post, where governors took the lead). Line-managers had been consulted by their SMT over 19 of the posts. Formal communication right across the colleges about proposed appointments were rare, however, particularly in new, initially small institutions. In the words of one principal, "If I'm honest, staff were not consulted. But in an evolving organisation its relatively easy to introduce new posts". Where colleges were neither finished nor open when appointments were made, consultation would barely have been feasible.

Some respondents admitted that, with hindsight, they would probably manage the process differently ("You move on in your thinking about how much consultation you'd do"). Others recognised that the increased scale and complexity of the college's operations affected staff expectations regarding in-put and feedback ("We were still a small close team and did not need formal consultation - though we may need it now"). In some cases there was communication about posts to staff rather than consultation with them ("It was a fait accompli. The decision was announced at a staff meeting where jobs and tasks were outlined").

Training and staff development

Almost half the SMT respondents reported some training had been provided for postholders and all the line-managers were able to be quite specific, probably because they were more closely involved in suggesting or approving it. Respondents reported new postholders joining their colleagues for staff development days or residential courses at the outset of their employment; participating in the college induction programme offered to all new staff; line-managers providing some training in the vacation prior to the postholder taking up the appointment; or acting as mentors during the first few months. As one line-manager commented, "Its a hairy thing to come into a new institution. I knew it was a lot to take on board". External consultants had been brought in to provide training in network management, and for video, graphic design and reprographics equipment.

Teachers knew less about postholders' training opportunities, apart from internal staff development in those colleges where, as a deliberate policy, all staff had an entitlement to it. (This was the case in six of the eight colleges.) Some INSET courses were post-specific (for example, machine safety): others provided training for all staff in matters concerning the college as a whole (for example, drugs awareness).

The majority of postholders (27/32) reported receiving some training whilst in post. In the few cases where no training had been provided this was reportedly due to postholders being recruited on the basis of proven experience, learning on the job, not having the time - or not needing it. For example, it was reported of one postholder, "He is in the area of communications. That is his background and his job. It would be different for someone in a different curriculum area". (The perception that someone with communication skills did not need some training for a role which included tutoring was not borne out by the postholder and did not seem a good idea, in terms of not undermining the professionalism of teachers.)

Comment

Fullan's 'three Rs' of relevance, readiness and resources were not mirrored directly in the CTC findings, although aspects of all three were present during the initiation stages described in this section. Thus, relevance (practicality plus need) could be found in managers' opportunistic use of staff, readiness (capacity plus need) was related to postholders having the requisite knowledge and skills - or, presumably - receiving training in them; and resources, in terms of funding staff development, all appear related to the CTC data.

ii) Implementation

Fullan's second stage was *Implementation*. Again he identified separate but related key factors and key themes.

Key factors

Fullan divided these into three groups (see Chapter One). The first group was:

a) Characteristics of the innovation or change project

- need
- clarity
- complexity
- quality/practicality.

The CTC data, as already reported, provided evidence of many of the innovative posts being a response to perceived need, as well as through the subsequent adjustments to posts when needs changed. Clarity has also been discussed, in the section dealing with boundaries between teachers and associate staff in Chapter Four, in the discussion of problems in Chapter Seven and, earlier in this chapter, in the section on Gross et al. Lack of clarity was found and, as Fullan suggested, could be problematic (and examples have already been discussed) but 'grey areas' could also serve a useful purpose with regard to innovation allowing scope, flexibility and modification. Complexity was an issue with some posts, particularly those which encompassed dual or multiple responsibilities and which created excessive pressure on associate staff. Examples have been given of subsequent changes to some complex dual posts. In the CTC study quality was used in reference to postholders, rather than a posts and was related to 'capability' and 'commitment', already discussed in relation to Gross et al. Practicality, where it was questionable, was likely to be affected adversely by the lack of clarity of a post. There were instances in the study of posts being created, or people appointed, in haste - due partly to the political, but also the practical, necessity of opening on time. Fullan's key characteristics were in evidence in the CTC study, although they should be considered to be inter-related, rather than free-standing.

- b) Fullan's second group was Local characteristics
- school district
- school board and community
- principal
- teacher.

Given the independent and unusual position of CTCs, the school district (local authority) played no part in the implementation. Some members of the school board (governors) had

been involved, as Project Managers or representatives of sponsors, in the establishment of individual CTCs but rarely with individual posts (an exception being the director of finance, noted already). The effect of the community on the introduction of some posts was touched on in the section on Initiation and was referred to by some senior managers, one of whom stated, "How you can innovate depends on the institution and its local context". Principals played a major part in the initiation of innovative posts, and examples were given in Chapter Four. Thereafter, the line-managers' roles in implementation were arguably more important. In Fullan's theory, in the main, teachers were charged with implementing innovation. For the purposes of the CTC study, they should perhaps be replaced by, or at least supplemented by, the associate staff themselves. Only two of the four local characteristics were relevant to the CTC study, mainly because of the independent nature of the colleges and the status of individual posts.

- c) Fullan's third group was External factors
- governments and other agencies.

Government (through its establishment of the CTCs) and the CTC Trust (indirectly, through its facilitating and co-ordinating role) had played a significant but minor and indirect part in implementation.

Key themes

Fullan's key themes in implementation were:

- vision building
- evolutionary planning
- initiative taking and empowerment
- staff development and resource assistance
- monitoring /problem coping
- restructuring.

Senior managers and line-managers in the CTCs were asked to identify key elements or strategies which had helped them introduce and manage innovation. Analysis of the data presented in Chapter Nine showed a remarkable resemblance to Fullan's list of key themes

in implementation, with some exceptions. Thus, the responses from managers reported in Chapter Nine indicated the importance of:

- communication
- consultation/empowerment
- delegation
- leadership
- support/staff development
- planning/review
- positive culture/ethos
- policy on status of associate staff
- pace and timing of innovation.

The responses will be taken category by category and compared with Fullan's themes.

Communication was a priority for CTC managers and, although not listed as a specific theme by Fullan, was an obvious way of transmitting vision and of promoting the shared sense of meaning implicit in his theme of 'vision building'. Consultation/empowerment and delegation were separate in the CTC analyses but interlinked in practice and bracketed together by Fullan ('initiative taking and empowerment'). Part of the exercise of successful leadership is the ability to create and transmit a vision and to inspire people to strive to achieve it. CTC managers' emphasis on staff development and support echoed its importance in Fullan's model. Planning and review and the evolutionary pace and timing of innovation matched the themes of 'evolutionary planning' and of 'monitoring/problem coping'. A positive culture and ethos was not a theme per se but Fullan did refer to it, for example, in relation to the 'readiness' of the school in the initiation process.

A policy on status and pay for associate staff did not feature in Fullan's list of themes. Although he wrote about several groups of people involved with schools (parents, community and students, as well as teachers, principals and administrators), there was no mention of the role of teachers' aides or para-professionals (the nearest North American equivalent to associate staff).

What Fullan saw as 'restructuring' had already happened through the introduction of the new CTCs. In addition, as discussed earlier, several CTCs had already undergone further restructuring. Fullan's key themes, more than any other components of his theory, related well to the CTC data.

iii) Continuation/institutionalisation

Fullan's third phase was *Continuation* (see Chapter One). Fullan argued that continuation depended on: change being built into the structure of institutions; the existence of a 'critical mass' of people committed to supporting innovation; and on procedures for continuing assistance. This phase, he maintained, was not an end in itself but was a continuous process of renewal.

In the CTC study, the findings on 'meaning' reported earlier suggested that change and innovation were an expected part of life in the colleges. The findings on 'commitment' indicated that there was support for innovation. No data related directly to continuing assistance.

Questions of duration and durability of the 32 posts were also addressed. The extent to which innovations had lasted was discussed both in Chapter Eight (on cost-effectiveness) and in Chapter Nine (on change). Although findings reported in both chapters indicated that all 32 posts were still in existence by the second round of visits, there had been changes to many of them (and changes of postholders in three cases). Changes had been the consequence of logical developments, of lessons learned in the early days of the innovation, and of adaptation to emerging needs and altered circumstances. The posts remained, albeit in modified form.

The majority of respondents considered that the innovations were now accepted as "part of the fabric" and that they had achieved their purpose. Almost all the postholders thought managers and teachers would be hard-pressed to do without them. The overwhelmingly positive views expressed from all groups of respondents suggest that many of the innovatory posts were becoming institutionalised and had taken root in the new colleges. But for almost

half the respondents, this did not indicate an end to that particular development as the innovations were expected to grow and change still more. The culture of the CTCs encouraged innovation as the norm; the lack of it was considered odd. As one respondent put it, in the spirit of a 'moving school' (Rosenholtz, 1989), "The dynamic nature of what we are doing here means that change and innovation (in the posts) are going to take place...as soon as we reach one target there will be another".

iv) Outcome

The outcomes, summarised in section one, comprised a major part of the findings of this thesis and have been drawn on in earlier sections of this chapter in relation to both Gross et al and Fullan.

4. A discussion of the congruence between the theories of Gross et al (1971) and Fullan (1991) and the findings of this study.

The theory of Gross et al about the five conditions for successful innovation was helpful in providing a theoretical context for the data. But some qualification of their criteria must be made in recognition that the circumstances and experiences surrounding many of the posts in this study were complex. As Chrispeels (1992) argued, "A complex view of change is needed to match the complex nature of schools" (p 182). It is only fair, however, to point out that Gross et al did recognise the issue ("In conceiving of educational change as a complex process, administrators will also need to recognize that most innovations require considerable alterations in the usual patterns of teacher behaviour". p 209) Fullan's theory was more comprehensive than Gross et al's and parts of it resonated well with the empirical factors and processes identified in the colleges, particularly the implementation themes. However, for the reasons suggested in this section, neither theory addressed three aspects of the situation in the CTCs.

Cost-effectiveness

Neither Gross et al nor Fullan commented specifically on the cost-effectiveness of innovation.

The cost-effectiveness data and analyses provided in this thesis, however, supported Gross

et al's assertions about the value of clarity and Fullan's writing on the importance of identifying need and on planning for change. Thus (with one exception) insufficiently thought-out posts were less likely to be cost-effective. Innovative posts, by definition, were less likely to have known parameters, so planned support was needed to avoid undue and expensive waste of time and effort. In addition, the cost-effectiveness data shed some light on Fullan's implementation and continuation stages. For example, where rapid growth had put pressure on a postholder to revert to routine but essential tasks or on a teacher to take on previously delegated tasks, the original cost-effectiveness of posts could be diminished.

New kinds of staff

Gross et al and Fullan wrote about school staff in terms of teachers and administrators. They did not include para-professionals or teacher aides. Bringing in disparate individuals to join staff groups composed of more traditional posts raised issues they did not touch upon.

In many respects, CTCs were fertile ground for these new kinds of personnel. The colleges had a brief to be innovative, enhanced resources and greater flexibility over appointments. There was evidence, cited in earlier chapters, that associate staff could bring "a breath of fresh air" into colleges. Postholders brought different skills, experiences - and cultural norms. Indeed, in Chapter Four, a quarter of respondents reported a "culture of innovation" in the colleges. If innovative posts were to succeed anywhere, it should be in this setting. Many - indeed the majority - of CTC staff were positive about the innovative posts and reported many more benefits than problems.

Some of the posts and the incumbents challenged the professionalism and the traditional division of roles in what they saw as the dominant teacher culture. This challenge could be positive: instances have been cited of how practices from other settings could stimulate new thinking or provide new opportunities for teachers. But the posts could also conflict with teachers' views of their professionalism and the underlying philosophies of teaching and learning in which (for example) teachers "work from a basis of learning processes", and associate staff "focus heavily on the outcomes of children's activities" (Moyles 1997).

Conversely, evidence has been presented of how the entrenched attitudes of some in the dominant teacher group undermined the benefits of some posts and increased the problems associated with them. Traditional roles in schools are clear cut but seldom flexible. In CTCs there were roles which were more flexible and ambiguous - but which could lead to stress for postholders and uncertainty for teachers. The challenge for managers was how to maximise flexibility whilst reducing tensions. An accommodation between conflicting cultures was needed. This could be fostered by communication and consultation which is, perhaps, why CTC managers afforded them such priority in their list of strategies for introducing innovations involving new posts or new kinds of personnel into institutions.

New kinds of institutions

Both Gross et al and Fullan wrote about introducing innovation and change into existing schools, where there would have been established norms and practices. However, the CTCs were new kinds of institutions. Six of the eight studied were completely new institutions, and four were in purpose-built premises. Only two of the colleges had been former LEA schools. From the writing of Gross et al and Fullan, one might expect it to be easier to implement innovation and change in brand new institutions, because one would not be battling against an existing culture or, in the case of some new posts, with conflicting industrial and educational cultures. From the CTC data, it was possible to make some observations on the differences between the new and the evolved colleges (in terms of introducing innovation) although, as noted, there were only two CTCs in the latter category.

In the two evolved colleges, senior managers had little choice but to introduce change into the status quo. The alternative would have been costly severance packages and the risk of loss of goodwill from the community and remaining staff. Staff movement would have made room for new blood - for staff recruited specifically to the CTC brief, able to bring "a vision from elsewhere". But senior managers had to make the best of their 'inherited' staff, some of whom were more amenable to innovation than others. Senior managers reported that, although people expected there to be changes, they "still caused ripples". There was still some resistance to innovation and change from teachers (including middle managers) who,

even though they had chosen to stay in the new CTC, wanted the *status quo* disturbed as little as possible (Bridge, 1994). This resistance was manifest in teachers' or managers' unwillingness to accept new, or to relinquish former, responsibilities. It also revealed itself in their attitudes towards the new associate staff posts filled by those from outside the profession, with different mores. Several examples have been given in earlier sections on problems with innovation. It is worth noting that, in the previous discussion of 'barriers', three of the five senior managers critical of 'staff capability' worked in these two 'evolved' CTCs. Furthermore, of the eight associate staff in these colleges, five reported finding teachers' attitudes a barrier.

Senior managers spoke of the need for prescriptive leadership at the outset in order, as one put it, "to deliver the fundamentals" of change. That approach, however, was reported as sapping staff confidence so that, when managers wanted to empower staff and needed them to be accountable, middle managers, in particular, resisted or even abdicated responsibility, seemingly afraid to fail or loath to grasp the nettle of difficult departmental decisions affecting long-time colleagues. As one senior manager commented, "One can talk of empowerment but if people don't want to be empowered, they won't be". Similar sentiments were reported in the discussion in the previous chapter on barriers to change.

Some staff had new posts shaped partly to accommodate their perceived strengths and partly to match, as far as possible, the needs of the new CTC. But the match was not always right and, as one senior manager stated, "We set out to do a lot of things at this CTC and find that people can't do them". Not surprisingly, some of the changes and some of the innovative posts did not always work as well as hoped. Some promotions or appointments to new posts of the 'inherited' staff were resented by colleagues, which created an unhelpful atmosphere in which to innovate. Two examples, one from each college, illustrate the point.

In the first college, a post had been created to draw on an existing staff member's interests and to foster the CTC aims. Evidence has been presented in earlier chapters about the

problems with the post. It foundered partly because of the postholder's management and prioritising skills but partly because the post was too weighted towards innovation, still seen by many teachers as irrelevant and lacking the substantive, albeit more traditional, elements which lent credibility to a relatively senior and well-paid position.

In the second example, the post had been created to blend the postholder's technical experience with the college's aims of devolving some management tasks from teachers. Such tasks included developing cross-college technician support managed by an associate staff member. But the tradition of technicians only working to individual heads of department proved too strong. Faced with resistance from teachers who were reluctant to let go part of their role and from associate staff who felt dispossessed by the change, the college, by the second phase, had suffered an "attrition of change" (Fink, 1997) and was in the process of reverting to its former practice.

In these two examples, although staff in colleges accepted, in principle, that innovation and change were a necessary part of attaining CTC status, the culture of innovation was still relatively weak so that "When it comes to the crunch, innovation is not a priority for staff, so that is the first to go". Although both Gross et al and Fullan commented on school culture, it did not figure prominently in their theories, nor did the existence of, and implications of, conflicting cultures.

The answer to the fifth research question, therefore, is that there was a general congruence between the theories of Gross et al and Fullan and the findings of this study (the match between Fullan's theoretical key implementation themes and the empirical management techniques identified by senior staff in CTCs was particularly notable) although some lack of correspondence was found. Given the obvious differences between the CTCs and the institutions on which the North American studies were based, it should not be surprising that this was the case. The theories did not address issues of cost-effectiveness, or deal with the specific types of staff, new kinds of institutions, or the cultures associated with them. The issue of 'culture' is developed more fully in the next chapter.

Chapter Eleven

THE CTC CULTURE AND THE INNOVATIVE POSTS

Introduction

This thesis set out to address six questions. In this final chapter the answers to five of the six research questions posed in Chapter One are summarised briefly, before attention is turned to the sixth and final question: were there any lessons for future theories of change? The chapter refers to data and discussions included in earlier chapters but the sections on culture and on the implications of the study for theory and practice are presented here for the first time.

The chapter has five sections.

- 1. A summary of the answers to the first five research questions
- 2. The 'cultures' of the workplace, of schools and of CTCs
- 3. The impact of these cultures on the final evaluations of the 32 posts
- 4. Lessons for future theories of change
- 5. Conclusions of the study.
- 1. A summary of the answers to the five research questions
- i) Had innovative posts been created in the CTCs?

The relative freedom of CTCs had resulted in the creation of a number of innovative posts, spurred on by the demands of the technological nature of colleges and facilitated by a culture which encouraged innovation. There had been many successful attempts to broaden the recruitment policies by bringing in people with experience outside education, a significant number of whom were enabled to engage in forms of teaching.

ii) What were their perceived benefits?

In answering both this and the next question, it should be noted that it has sometimes been difficult to distinguish between posts and postholders. As the poet Yeats wrote, "How can we know the dancer from the dance?" (Yeats, 1928).

There were organisational benefits (for the administration of the colleges and the organisation of teaching and learning) and personal benefits (for respondents who worked with associate staff and for the postholders themselves). The benefits were not evenly spread: some posts benefitted one group or one aspect of college life more than another. Benefits included better learning opportunities for students provided by a combination of (teachers') academic and (postholders') commercial or industrial expertise and the availability of more time for pedagogy and planning for teachers and managers. The willingness of CTCs to recruit widely, coupled with the provision of an enrichment curriculum, provided additional opportunities for postholders to use their skills. Most associate staff were deemed to be capable and committed and to enjoy high levels of job satisfaction and self-esteem.

iii) What were their perceived problems?

Far fewer problems than benefits were reported. Problems relating to pressure and tensions came mainly from associate staff. Managers also recognised, however, that some posts carried wide-ranging responsibilities which generated anxiety in postholders. Associate staff with a dual role faced problems to do with their identity and status as well as in prioritising their duties. Where new posts had not been thought-through, lack of clarity created problems. Teachers' negative or inaccurate perceptions of what posts entailed and of the possible impact on their own professional roles were reported. Some problems were associated with the person rather than the post. Thus, a minority of teachers felt de-skilled by postholders' technological expertise or resented what they saw as their 'freedom'. A small number of respondents were critical of the postholders' performance or of attitudes and values they saw as stemming from an industrial, rather than an educational, culture.

iv) Were the posts cost effective?

Almost two thirds of the posts were judged, overall, to be cost-effective. Associate staff brought expertise to the colleges which often led to better use of resources. Their varied skills could be used flexibly, as needs arose, and several were able to teach groups or classes. A few postholders generated income for the CTCs and so met part of their own costs.

v) How congruent were the findings of the study with the theories of Gross et al (1971) and Fullan (1991)?

As noted in the last chapter, there was a congruence between the theories of Gross et al and Fullan with the data collected from the CTCs although, where this was not the case, some qualifications and suggestions have been made. The match between Fullan's theoretical key implementation themes and the empirical key strategies identified by CTC managers was striking. The main omissions, as noted, were related to issues of cost-effectiveness, and with specific types of staff in new kinds of institutions, and the cultures surrounding them.

2. The 'cultures' of the workplace, of schools and of CTCs

It is evident from Chapter Ten that the theories of Gross et al about the conditions necessary for successful innovation were partly supported by the findings of the study but they were not able to explain the complexity of interactions which appear to foster or inhibit innovations, with new kinds of staff, in new types of institutions. The omission was countered to some extent by Fullan's use of the concept of 'meaning'. It seems likely that 'meaning' is derived partly from an individual's personality and experience and partly from the culture of the organisation of which he or she is a member. Gross et al made little mention of culture although, as noted, 'culture' was acknowledged in their comments on initial resistance to change. Similarly, Fullan did not focus on culture per se (Hargreaves, 1995). He did, however, recognise that, for successful change, "Everyone inside and outside the school is going to have to put great energy over a period of time into changing the culture of the school. This means new values, norms, skills, practices and structures".(p 352)

Workplace culture¹

There is a full literature on the culture of organisations (Peters and Waterman, 1982; Deal and Kennedy, 1983; Schein, 1985; Handy, 1993;). This study has been able to draw on only a fraction of it in an effort to understand the innovations in the CTCs. Culture is difficult to define and every writer on the subject has a slightly different emphasis. Schein (1985) noted

For the purposes of this discussion the culture of the industrial workplace and the culture of the school will be treated separately.

the shortcomings of various interpretations which lacked recognition of the basic assumptions and beliefs which defined "in a basic 'taken for granted' fashion an organisation's view of itself and its environment". (p 6) Handy (1993) defined culture as "the feeling of a pervasive way of life, or a set of norms" (p 181) and argued that "in organisations there are deep-set beliefs about the way work should be organized, the way authority should be exercised, people rewarded and people controlled...do work hours matter, or dress, or personal eccentricities?". (p 181) Handy suggested there were four kinds of organizational cultures, each with its own structure and systems. These were:

- the *power culture*, with a strong central figure, typified by small entrepreneurial organisations which put a lot of faith in individuals and less in bureaucracy
- the role culture, typified by a large industrial company with a bureaucracy, a strong departmental structure and prescribed roles and practices which offered security and predictability
- the *task culture*, typified by the flexible teams of competitive marketing or advertising companies, in which individuals had a high degree of control over their work
- the person culture, typified by an individual operating within another kind of culture
 which he or she used as a base from which to pursue personal interests.

Certain types of people, Handy suggested, would be more successful in one kind of culture than another. These cultures will be referred to in a subsequent section.

School culture

The term 'culture' has been used in relation to educational contexts for many years (Waller, 1932; Sarason, 1971) although some writers claim it is still a neglected (Reynolds and Packer, 1992) and poorly understood (Lieberman and Miller, 1984) concept. Early studies of school effectiveness noted the importance of ethos or culture (Rutter et al, 1979; Purkey and Smith, 1983) and Hargreaves (1995) has formulated two typologies to help link school culture and school improvement. The oft-quoted definition by Deal and Kennedy (1993) as "the way we do things round here" (p 14), was considered too superficial by Lawton (1997), who wrote that, "For the term school culture to be used in a meaningful way, it must refer to the beliefs, values and behaviour of the teachers (including the head teacher)" (p 40). On the basis of

findings from the CTCs, it is arguably also important to include the associate staff. Accordingly, Lawton's definition has been adapted for this discussion to read:

'School culture consists of the beliefs, values and behaviour of the head, the teachers and the associate staff of the institution'.

Establishing or changing the culture of any organisation is notoriously difficult (Tangerud and Wallin, 1986; Wideen, 1987; Ruddock, 1991). Several writers have linked such efforts to leadership (Schein, 1985; Stoll and Fink, 1996), empowerment (Gorringe, 1994) and management skills (Peters and Waterman, 1982; Hargreaves and Hopkins, 1991). of the "tools for culture change" (Gorringe, 1994, p 184), "levers of culture shift" (Limb, 1994, p 237) and components of a "model of changing culture" (Ruddiman, 1994, p 244) resembled Fullan's key themes for implementation, discussed in the previous chapter. Thus, Gorringe's six 'tools' included clarity of purpose, presentation of vision, staff support and empowerment, and leadership. Limb's 'levers' included consultation, risk taking, empowerment, commitment and role modelling by senior managers. Other levers of cultural change noted by Bridge (1994) were physical appearances (as manifest in both buildings design and dress code for staff), having governors from industry, having strategies for socialising new staff into the desired culture and using "modest rewards" as incentives for a cultural shift from what he termed a "passing the buck" mentality, to a "we are all responsible for our success" mentality. Several of these levers found expression in CTCs and, with the other tools and components, were apparent in the CTC managers' strategies for introducing and implementing innovation, referred to in Chapters Nine and Ten.

Bridge (1994) argued that the power of different cultures became more obvious when one moved to a new and different culture (such as, in the case of staff in CTCs, from industry to education). He also argued, however, that "inappropriate cultural values are usually held by people who have been too long, rather than not long enough, in the organisation" (p 192). Indications of that situation have been cited in relation to the evolved CTCs. Lewis (1994) suggested that organisations have two opposing factors that either drive or restrict cultural change. Among the latter was resistance from academic staff. This view was similar

to that of Schmuck (1990) who traced many of the difficulties experienced by staff during periods of change to the culture of the school.

CTC culture

City Technology Colleges, as noted in Chapter One, were conceived as "a new choice of school" (DES, 1986, p 2). They contained features which made them different to most maintained secondary schools and each had developed what appeared to be a general CTC culture, incorporating elements of "a scientific and technological culture" (Whitty, Edwards and Gewirtz, 1993, p 110) and "a business and industry culture" (p 114).

There were several ways in which the general CTC culture was developed and sustained: the hi-tech appearance of the building; the business-like reception areas and reception staff; the prominent display of the sponsors' logos and other evidence of their involvement in the colleges. All these features signalled to visitors that there was something different about the institutions. Furthermore, in some colleges staff were expected to adhere to business-like dress codes and post-16 students were expected to dress as if going to work in a business setting. The terminology used ('line-manager', 'customer' or 'client', the titles of several posts, 'restaurant' rather than canteen or dining room) reinforced the businesslike image. The amount of new technology equipment, its high visibility and the wide-ranging use made of it, reinforced the high-tech image. Some CTCs also had a separate income-generating 'arm', run like a small business enterprise, since the colleges themselves were not allowed to be profit-making. All these factors combined to produce the CTC image and "enterprise ethos" referred to by Fey (1991).

The eight CTCs, with their "obstinate particularity" (Whitty, Edwards and Gewirtz, p 105), had each established their own versions of the CTC culture, albeit with some common elements. No systematic analysis of the different cultures of the individual CTCs was undertaken as part of the fieldwork of the study. The importance of the cultural settings of the 32 posts only emerged from the detailed analyses of the data. Consequently, although 'culture' played little part in the ESRC report, it is dealt with in more detail in this thesis.

In the six CTCs which had started 'from scratch' there were few cultural constraints caused by organisational or personnel 'givens' (Mortimore et al, 1988). Principals had been able to appoint new staff whom they judged to be supportive of innovation and change. Moreover, there was an element of self-selection among those who applied for posts ("People know what we are about and when they come they expect it to be dynamic"). It was pointed out by several senior managers that prospective applicants came to have a look but, if they did not like what they saw or what they thought would be expected of them, might not pursue the post. Senior managers also had the flexibility to approach favoured outsiders directly (and, if necessary, pay above the going rate to attract them) or to respond to unsolicited approaches from people who thought they had something to offer the new colleges.

The reduced role of trades unions and professional associations (which were generally permitted, even welcomed, in their professional support role but given no negotiating rights) added to this flexibility. It was noted in Chapter Four that staff had been recruited from industry and commerce, according to their perceived 'fitness for purpose' and for the expertise they could bring to complement that of the teachers (as suggested by Handy, 1997). The new, well-resourced colleges attracted young teachers. Some senior managers acknowledged that, initially at least, they had welcomed such staff for their energy and enthusiasm - and because it was easier to socialise them into the developing mores of the new colleges. Furthermore, most CTCs in the sample operated a longer school day, more akin to business hours (although there was flexibility according to days of the week or age of students) and a five-term year. As noted earlier, this form of organisation had implications for the age profile of staff so that some colleges had a disproportionately large group of young staff and fewer mid-career teachers.

Most of the colleges had opened without a full complement of students - and with relatively small staff groups composed of, initially, proportionately more associate staff than teachers. Small groups of 'foundation' staff, amongst whom camaraderie flourished, undoubtedly made it easier for senior staff to develop a distinctive 'collegial' culture (Hargreaves, 1995) and to establish precedents in how associate staff were regarded and deployed.

There was a risk, however, that the culture of innovation, relatively easy to introduce in brand new institutions with small groups of committed staff, would be diluted and that staff would revert to more traditional ways, as teacher numbers grew. Some managers, however, had a range of strategies to sustain the new culture. These included a residential course for all staff at the start of each academic year, compulsory induction programmes, whole-staff development entitlements, the pairing of new staff with foundation staff and incentives (for example, a weekend residential for staff developing a new course). This latter is an example of Sarason's (1990) view that "When a process makes people feel that they have a voice in matters that affect them, they will have a greater commitment to the overall enterprise and will take greater responsibility for what happens to the enterprise". (p 61)

In some colleges the use of time and space undoubtedly contributed to the different cultural 'feel'. The most obvious example, noted in earlier chapters, was where the timetable allowed maximum flexibility of time, space and staffing. The rolling timetable throughout the day meant there were no common breaks or lunch hour. Significantly, there was no staff room: staff and students with free periods worked alongside each other at several work stations around the building. The same college was developing the concept of a 'master teacher', supported by another teacher or by associate staff with specific skills. In Handy's words, such a master teacher could be akin to "visionaries...who can frame the world" for students (Handy, 1996 p 4).

As Lewis (1994) and Schmuck (1990) noted, some factors limited, or militated against, the development of a new culture. The organisation of the college cited above, helped create a specific culture which could foster staff/student links - but which could limit staff/staff association. 'Old' staff staying too long and what Lieberman and Miller (1990) term the "dailiness of teaching", which allowed territories to become established and defended, could lead to a traditional, and resistant to change, teacher subculture. The difficulties engendered by the 'traditional' teacher culture (Hargreaves, 1995) in the evolved CTCs, as they strove to accommodate 'inherited' staff or to modify teachers' unrealistic expectations, were discussed in the previous chapter.

Other pressures also contributed to the formation of college cultures. These included being in a new school, with frequent media attention (hostile, in the case of some CTCs), the awareness of high public expectations and the sensation "of working in a goldfish bowl". Similar experiences have been described by Louis and King (1993). The authors noted the lack of any precedents amongst staff who, initially, were "strangers" with no history of trust, and they emphasised how new roles could be fraught with difficulties. The difficulties were encompassed neatly in Stinchcombe's (1965) phrase, "liability of newness" (p 148). This 'newness' provided a favourable climate for the rapid development of a college-specific culture which incorporated elements of both pride and defensiveness.

What part, if any, did these cultures play in the success - or lack of success - of the 32 posts which were the focus of the study?

3. The impact of these cultures on the final evaluations of the 32 posts

In order to answer this question it is necessary to make a final judgement on which posts had succeeded and why but before presenting the judgements a number of caveats need to be made.

- i) Respondents were working in high profile institutions, often facing local criticism, and were aware of the pressures on them to succeed. When questioned, in phase one of the research, about the benefits and problems encountered in relation to the new posts, it would not have been surprising if respondents overstated the advantages and successes of the posts.
- ii) Some beneficial and unproblematic posts did not appear to be cost-effective, largely due to the high supervision costs estimated by their managers, a dimension which currently lessened their success.
- iii) Problematic posts could, for other reasons, still be cost-effective.
- iv) The phase two interviews revealed
- that some benefits had increased over time, as posts became established or postholders demonstrated further skills
- that some qualifying remarks about perceived benefits, or difficulties merely alluded to in passing in the first round of interviews had, by the second interview, crystallised

The CTC Culture and the Innovative Posts

into problems which threatened the success of the innovation

 that there had been some changes of personnel and managers and to the major responsibilities of some posts.

The overall success of the 32 posts will be judged in relation to the benefits and problems noted in Chapters Six and Seven, the cost-effectiveness analyses of Chapter Eight and the phase two data of Chapter Nine. It should be stressed that, in the evaluations which follow, no attempt will be made to carry out a cultural analysis of every CTC, rather some cultural observations will be made where they are relevant to the success, or otherwise, of the posts.

The categories used in Chapter Eight are adopted here. Each of the 32 posts has been placed in one of the six categories. Each category will be discussed in turn. Table 11.1 is similar to Table 8.5. The categories are as before.

Category A: The post met a defined need, was held by competent postholder and was cost-effective.

Category B: The post met a defined need and, with a change of postholder, was cost-effective.

Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

Category D: The post met a defined need but, as currently operated, was non cost-effective.

Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

Category F: Doubts about posts, postholders and cost-effectiveness.

The categorisation of each post is shown in Table 11.1.

Table 11.1 Researcher's assessments of the overall effectiveness of the posts

			College factors	
		A: Post valued and cost-effective	C: Post valued; costly supervision	E: Post problematic
P o s t h o	P'h able	Public relations Director finance Site/facilities Systems Site/facilities	Buyer/premises Systems ***********************************	Site/welfare Personnel **********************************
l d e r		Info. resources Curric. support Info. resources Video/film tech. LTS trainee	Sen. science tech.	Teacher/technician Sen. co-ord.tech. B'caster/tutor Business links
		IT manager Development IT manager Vocat. assessments Senior manager Technician man.	******	**************************************
	S/total	16	3	7
P o s t		B:Post valued and cost-effective with change of p/h	D: Post valued; not cost eff. as currently operating	F:Doubts re. post & p/h
h o l d e r	P'h proble matic	Parent/coll. relats. ***********************************	**************************************	******************** Learning liaison Technician/tutor ************************************
	S/total	2	1	3
	Total	18	4	10 (32)

Category A: The post met a defined need, was held by competent postholder and was cost-effective.

The sixteen *posts* in this category were judged to be successful for a number of reasons (although no post exemplified all of them)². The posts met specific needs which resulted directly from the particular nature of the CTCs. They relieved managers and teachers of a number of tasks, from the significant to the routine, thereby allowing them more time for strategic planning and pedagogy. The posts furthered the CTC mission of being at the cutting edge of developments in IT and vocational education and assessment. They also contributed to income-generation, staff development and to meeting college-specific goals in the community (such as promoting opportunities for local school leavers, women returners and the longer-term unemployed). The posts enabled senior managers to be more flexible in their use of staff skills and widened the career horizons of individual postholders. All the posts were deemed to be cost-effective.

The *postholders* contributed to the success of the posts by virtue of their previous expertise gained outside of education, which they were able to relate directly to their roles and responsibilities in the CTCs. Some postholders had extra skills which they were encouraged to use with students in the mainstream or enrichment curricula. Most of these postholders were willing to try out new ideas and roles, to take risks, to be entrepreneurial, to put themselves out for the good of the new enterprise. This willingness found expression in, and was fostered by, the environment of the colleges which gave scope for capitalising on staff capabilities. The success of the posts stemmed from the combination of the planned meeting of identified needs and the opportunistic use of associate staff skills in a CTC culture which encouraged innovation.

Category B: The post met a defined need and, with a change of postholder, was cost-effective.

There were only two posts in this category. The parent/college relations post had fulfilled

² In Table 8.5, 17 posts were assigned to this category. The overall judgement required one post to be moved to Category E.

an important function in reassuring parents of students in a new institution in a hostile LEA. Very low truancy rates were maintained. However, changing demands necessitated a sideways move for the postholder. It was hoped that the *new postholder* would shape the post differently since the college's needs were somewhat different to when the CTC opened. A graphic design *post* provided professional-quality marketing material and attractive curriculum materials. The original postholder left the college but the post was retained. The *new postholder* had a broader range of skills and the ambition to qualify as a teacher and the role was being developed to capitalise on that situation. The two posts reflected different aims of the CTCs. Both posts were judged to be cost-effective.

Category C: The post met a defined need and was held by a competent postholder but high supervision costs made the post non cost-effective.

There were three posts in this category. The site/buyer post, like the other premises posts in Category A, covered responsibilities for many of the tasks formerly carried out by the LEA. The opportunistic use of the postholder's known skills had shaped the post. The systems manager post was central to the CTC's technology mission. postholder's technical expertise and commercial experience were valued by both the college and the curriculum administrators. The senior science technician post was valued for the management time it saved heads of departments and the laboratory time it saved teachers. The experienced postholder was able to contribute to the curriculum and departmental planning and to support students. However, all three posts had high reported supervision costs. These may have been set at unrealistic levels because, as suggested in Chapter Eight, managers may have been unused to having to identify such figures. Moreover, the costs might reduce considerably as the posts become established and the postholders need less supervision. All three posts were in the CTC where "prescriptive leadership" was seen to be needed in shaping a new culture. This leadership style probably called for a high degree of management of these posts, two of which would possibly not have been in the management repertoire of senior staff.

Category D: The post met a defined need but, as currently operated, was non cost-effective.

The one post in this category was discussed in some detail in Chapter Eight. The post was central to the curriculum of this CTC and the desire to employ "industry street-wise" professionals from the field reflected the pro-industry culture of the college. The postholder was an experienced practitioner with industrial experience acquired in what Handy (1993) termed a 'project culture'. There were clashes, however, between this individualistic culture and the educational culture, typified in the teachers' inclusive, and the postholder's excluding, attitudes to students. These tensions reduced the success and the cost-effectiveness of this post as currently operated.

Category E: The post had initially met a defined need and was held by a competent postholder but changing circumstances made it non cost-effective.

There were seven posts in this category, one more than in Table 8.5. The posts had been developed for a number of reasons: the assumption of specific responsibilities from the LEA; furthering the colleges' aims of increasing cross-college work and devolving responsibilities from teachers; fostering the business ethos and links with industry; and promoting the CTC mission to be innovative in science and technology. Five of the postholders had particular experience which made them attractive recruits to CTCs which prided themselves on using associate staff skills as broadly as possible. In theory, it is easy to see why managers - and postholders - thought this group of posts had the potential to be successful innovations. In every case, however, the post (but not the postholder) had presented problems. For three posts, problems were a consequence of the natural growth of the college exerting undue pressure. The posts suffered from "innovation overload" (Fink, 1997, p 12) and the innovative aspects of the role were diminished. A rather different situation obtained, however, with two posts. Both were resisted by a "balkanised" teacher culture (Goodson and Hargreaves, 1996) which was unwilling to cede management responsibility or territory, traditionally held by teachers, to associate staff. One post was moved from Category A because of these difficulties. Tensions over

the parameters of the *posts* and the status of the *postholders* undermined the success of these innovations and led to "the attrition of change" (Fink, p 30).

Category F: Doubts about posts, postholders and cost-effectiveness.

There were three posts in this last category. All have been identified in the earlier chapters on problems and cost-effectiveness. The *posts* were intended to further the colleges' curriculum, industrial and entrepreneurial aims. They faltered because they were too skewed to innovation and had insufficient 'anchoring' responsibilities; encapsulated disparate and incompatible needs; or because one aspect of the post had got out of synchrony with the other. Two *posts* represented the negative consequences of accepting unsolicited approaches from postholders, respectively, more suited (in Handy's terms) to a 'person culture' and a 'role culture'. For a number of reasons, all rehearsed in earlier chapters, neither *the posts* nor *the postholders* had met expectations. All three posts were judged *non cost-effective*.

It is clear from Table 11.1 that, of the posts in Category A, the highest proportion (6/9) were in the group that supported both management and curriculum and that almost half the difficulties (6/13) in categories E and F were from the group of posts supporting the curriculum. This suggests that posts which took specialist tasks from teachers and managers were welcomed (assuming they were executed competently) but that posts which impinged on teaching were more likely to encounter the barriers of teachers' professionalism and culture described by Goodson and Hargreaves (1996).

In summary, workplace, school and CTC cultures all played a part in the success or problems associated with the 32 posts, although the impact of one culture on another varied from post to post. Moreover, other factors, such as the opportunistic and entrepreneurial spirit of both managers and some postholders, also came into force.

4. Are there lessons from the study for future theories of change?

The answer to the sixth research question is that there are lessons arising from the

omission of the three issues, identified in Chapter Ten, from the theories under consideration. The lessons are to do with cost-effectiveness, new types of posts and new kinds of educational institutions and their emerging cultures.

As has been argued in earlier chapters, cost-effectiveness is a crucial issue at a time of delegated budgets. Theories of change, therefore, need a cost dimension. The methodology drawn on for this thesis represents one way of dealing with variable costs and benefits but different approaches need to be developed and refined to take account of the complexity of modern educational settings. There is also some paradoxical evidence about change in this study. In some cases, associate staff aspired to become teachers - and worked to this end to the benefit of the college and the individual. They thus successfully changed their role in the same institution. At the same time, others endeavouring to make the same change were less successful: they failed to become what were seen as 'good' teachers. Through their change they had abandoned a role which they had performed well and which was valued highly by the college but had fallen short of expectations of their new role.

As the use of IT in school administration and in the curriculum increases, there is likely to be an influx of staff from different backgrounds and work cultures. The creation of a New National Grid for the Millenium (DfEE, 1997) will need not only more teachers who are knowledgeable about (to use the terminology of the White Paper) information and communications technology (ICT) but also skilled technical staff to assist them. Theories of change need to be able to deal not only with the need for the 'internal' culture to adapt to the change but also the need for an accommodation between the internal and different 'external' cultures. Furthermore, in what are sometimes referred to as these 'postmodern' times (Elkind, 1997), education systems are less universal and more particularistic, less regular and more irregular. Theories, therefore, need to be able to cope with *new* institutions which, despite their newness, also have to face further change, sometimes quite rapidly. At a time when there is talk of 'fresh start' strategies (Barber, 1997), in which schools keep the same buildings and pupils but change their staff and,

similarly, when the influence of league tables results in schools keeping staff, but seeking to replace low performing students in order to attract those with greater potential, theories of change need further elaboration.

5. Conclusions of the study

Generalisability

The potential for generalising from the experience of the 32 posts to other secondary schools influenced the initial decisions over which posts to include in the study (see Chapter Two). Consideration was given then to the increases in financial autonomy, in information technology, in parental choice and in the self-marketing of schools which were faced by most secondary schools. This situations has, if anything, been exacerbated over the lifetime of the study, with the adoption by many schools of grant maintained or technology school status. In this thesis several references to potential generalisability have been made. If (as suggested in Chapter Eight) schools were to carry out an audit of need and an audit of staff skills and apply the criterion of 'fitness for purpose', they might find that several tasks and responsibilities, like so many described in preceding chapters, could be carried out by associate staff - and often at lower cost. The benefits of such an approach for several aspects of college life, for managers' leadership and strategic planning roles and for teachers' pedagogic roles, have been well documented in the study. There are also lessons to be learned from the 32 posts about the potential pitfalls of introducing new kinds of posts and new kinds of postholders - and some indications have been given of how the risks might be minimised. The benefits of a five-term year could be generalisable - more so if it were to be adopted more widely (since a major disadvantage of the lack of synchrony with other schools was the effect on recruiting mid-career teachers with school-age children). There is mixed evidence on the effect of a different year pattern on achievement (Kingston, 1997) but the potential effect on course organisation and reduction of staff and student 'burn out' could be beneficial. Generalisability has also been discussed with regard to cost-effectiveness (Chapter 8) and the creation of associate staff posts (Chapter 9).

Implications for policy makers

Policy makers frequently discover that they do not always get the results they expect from policy changes. The difficulties over sponsorships and funding for the CTCs and the resulting high levels of public expenditure were noted in Chapter One. Those who, in 1986, introduced the new institutions, also loosened the employment framework in which maintained schools have to operate, in order to allow CTCs to employ individuals with different backgrounds and experience. The evidence from this study is that the results of that policy change were mixed: suitable staff were hard to find; some colleges came to regret employing as teachers those who were ill-equipped to make the transition from industry or commerce; successful individuals could face a career impasse; some teachers resented what was perceived as a threat to their professionalism. The lesson for policy makers is that unintended consequences almost always occur.

Implications for practitioners

There are numerous lessons which can be drawn from data produced by this study for practitioners seeking to create change in schools. Here just three areas will be touched upon: communication; status; and benefits.

Communication

The implications for managers and teachers were spelled out in Chapters Seven and Nine and will be referred to only briefly here. They point up the importance of communication about innovation to, in particular, those whose own role or status will be affected by it. The teacher resistance to innovation reported in earlier chapters, however, should be kept in proportion. It was manifested by relatively few teachers in relation to a handful of posts and, as noted in Chapter Seven, some of the opposition expressed was of a seemingly minor, even carping, nature. That said, more effective communication could perhaps have lessened even that. (Although it is salutary to remember Huberman's advice that "significant changes have virtually no reality outside of what local actors think they are", Huberman, 1992, p 8).

Status

The status of the associate staff and of the posts they hold, relative to teacher colleagues, needs to be considered by those planning innovation of the kind described in this study. Parity of esteem may be an avowed aim - and even included in a written policy - but unless the associate staff member is at senior management level this may be unattainable in reality. 'Parity of respect' may be a more realistic term and goal allowing, as it does, staff without teaching qualifications and backgrounds to play important roles within the institutions.

Benefits for schools

The numerous and wide-ranging benefits reported illustrate a number of ways in which schools can draw on the CTC experience of innovative staffing. In particular, the cost-effectiveness of posts could be used in the consideration of staffing structures. Even though teachers could (rightly) argue that - in comparison to the CTCs - their institutions are under-funded and more heavily regulated, lessons can be learned. Most importantly, there are lessons to do with the tasks that associate staff can undertake. Such tasks can be routine or specialist. In either case, teachers can feel supported without their professional, pedagogical role being threatened. Where the work of associate staff does impinge on the professional role of teachers, staff development is valuable for both parties. It is also clear that, in such cases, the personality of the postholder is of considerable importance, more so than when the role is simply to undertake routine administrative or support functions.

Implications for policy makers and practitioners

One implication of this study points to a future teaching profession containing fewer (better paid) teachers, spending more time on what they have been trained to do and receiving greater support from other staff. The aim of one of the colleges in the study to develop the role of 'master teacher' has already been noted. Support for such a view of the profession can, perhaps, be discerned in two recent suggestions by the Government. First, the creation of a new career grade of 'Advanced Skills Teachers'

who would "have a key role to play in raising standards by supporting and mentoring trainee and newly qualified teachers" (Department for Education and Employment, 1997, p 48). Second, a consideration of ways in which "highly qualified teachers do not waste their time doing things that can be done by other people". (p50) Both suggestions draw on the work of Hargreaves (1990; 1997); Mortimore, Mortimore and Thomas (1992); and Barber and Brighouse (1992).

Implications for researchers

As with any empirical research, it is possible to recommend subsequent work, drawing on this study but following up areas it was not possible to pursue. Further work on cost-effectiveness, as stated earlier, is needed to develop alternative models. In addition, it would be valuable to know to what extent innovations, like those reported in this thesis, suffered from the "attrition of change" (Fink, 1997) when the excitement and challenge of innovation began to wane under the pressure of innovation 'overload' or when the highly committed 'foundation staff' moved on. Studies of how to maintain the pace of innovation could provide useful guidance for practitioners and policy makers. Finally, a study which 'listened' to the voice of students, which this study was not able to do, could also generate new knowledge, of potential value to managers of institutions, about what innovation meant for student learners.

Contribution of the study

This thesis drew on the empirical work of an ESRC- funded study to address the six questions set out in Chapter One. Like the ESRC study, the thesis did not attempt to evaluate the CTC movement or the achievements of the sample studied. More modestly, it sought to:

- examine in detail 32 innovative posts selected from eight institutions, which were deliberately established to be innovative
- analyse the planning, establishment and maintenance of the posts, through the theoretical perspectives of Gross et al (1971) and Fullan (1991)
- draw on the methodology of cost-effectiveness analysis to judge the overall

The CTC Culture and the Innovative Posts

effectiveness of the posts

- use the researcher's independent judgement to point up where theories of educational change might be amplified, and
- generalise the results to other educational institutions.

The development of educational systems is difficult to predict but this study has tried to learn from the present to inform the future. In the framework which has been set out for the next five years (DfEE, 1997) it seems that CTCs will have a role as specialist schools, developing their particular approach as "part of the broader family of schools" (p 41). Within a system which is based on "fair funding, fair admissions and co-operation instead of market competition" (Blunkett, 1997), it seems certain that innovation will continue and the cost-effective use of human resources will remain a priority.

References

- Abbott, I. (1993) The opening of a City Technology College: the effect on local authority schools, *School Organisation*, Vol. 13, No. 1, pp 3-9.
- Abrams, B. (1994) Five for the future?, Managing Schools Today, Vol. 3, No. 4, January, pp 5-6.
- Adelman, C., Jenkins, D. and Kemmis, S. (1980) Rethinking case-study: Notes from the second Cambridge Conference, in H. Simons (Ed.) *Towards a Science of the Singular*, Centre for Applied Research in Education, University of East Anglia, pp 45-61.
- Association of Metropolitan Authorities (1987) City Technology Colleges: a speculative investment, London: AMA.
- Baker, K., interviewed by Matthew Parris on Weekend World, 7 December 1986, quoted in Whitty, G., Edwards, T. and Gewirtz, S. (1993) Specialisation and Choice in Urban Education: the City Technology College Experiment, London: Routledge, p 127.
- Ball, S. (1990) Politics and Policy Making: Explorations in Political Sociology, London: Routledge.
- Barber, M. (1997) The Learning Game: Arguments for an Educational Revolution: London: Gollancz.
- Barber, M. and Brighouse, T. (1992) The Case for Teaching Assistants and Teaching Associates, London: Institute for Public Policy Research.
- Barth, R. (1979) Home-based reinforcement of school behaviour: a review and analysis, *Review of Educational Research*, Vol. 49, No 3, pp 436-458.
- Bash, L. and Coulby, D. (1989) The Education Reform Act: Competition and Control, London: Cassell.
- Belbin, M. (1981) Management Teams: Why They Succeed or Fail, London: Heinemann.
- Benn, C. (1987) Baker's dozen: City Technology Colleges, Teaching London Kids, Vol.25, pp 9-11.
- Benn, C. (1990) The public face of private education and privatization, *Forum*, Vol. 32, No. 3, pp 68-73.
- Bennis, W. and Nanus, B. (1985) Leaders: The Strategies for Taking Charge, New York: Harper and Row.
- Blunkett, D. (1997) Guardian Education, 8 July.
- Bogdan, R. and Biklen, S. (1992) Qualitative Research for Education: An Introduction to Theory and Methods, Boston: Allyn and Bacon.
- Brannen, J. (1992) (Ed) Mixing Methods: Qualitative and Quantitative Research, Aldershot: Avebury.

- Bridge, W. (1994) Where contrasting cultures meet, in R. Gorringe et al, Changing the Culture of a College, Coombe Lodge Report, Vol. 24. No.3 Blagdon, Bristol: The Staff College, Coombe Lodge, pp 189- 198.
- Bryman, A. (1988) Quantity and Quality in Social Research, London: Unwin Hyman.
- Caldwell, B. and Spinks, J. (1988) The Self-managing School, London: Falmer Press.
- Campbell, R. and Neill, S. (1990) Thirteen Hundred and Thirty Days: Final Report of a Pilot Study of Teacher Time in Key Stage 1, London: Assistant Masters and Mistresses Association.
- Campbell, R. and Neill, S. (1991) *The Workloads of Secondary School Teachers: Final Report*, London: Assistant Masters and Mistresses Association.
- Cannell C. and Kahn, R. (1968) Interviewing, New York: Addison Wesley.
- Central Advisory Council for Education (England) (1967) Children and Their Primary Schools (the Plowden Report), London: HMSO.
- Chitty, C. (1987) The Commodification of Education, Forum, Vol. 29, No. 3, pp 66-69.
- Chitty, C. (1989) CTCs: A strategy for elitism, Forum, Vol.31, No.2, pp 37-40.
- Chitty, C., Weiner, G. and Gleeson, D. (1994) Review Symposium (on Whitty, G., Edwards, T. and Gewirtz, S. (1993) Specialisation and Choice in Urban Education: the City Technology College Experiment, London: Routledge) in British Journal of Sociology of Education, Vol.15, No. 3, pp 409-20.
- Chrispeels, J. (1992) Purposeful Restructuring: Creating a Culture for Learning and Achievement in Elementary Schools, London: Falmer Press.
- Chubb, J. and Moe, T. (1992) The classroom revolution, Sunday Times Magazine, 9 February.
- Cohen, L. and Mannion, L. (1985) Research Methods in Education, second edition. London: Croom Helm.
- Committee of Inquiry into Reading and the Use of English (1975) A Language for Life (the Bullock Report), London: HMSO.
- Corbett, D. and Wilson, B. (1991) Testing, Reform and Rebellion, Norwood, NJ:Ablex.
- Curtis, J. (1990) Training and Vocational Education Initiative Review, Sheffield: Employment Department.
- Dale, R., Bowe, R., Harris, D., Loveys, M., Moore, R., Shilling, C., Sikes, P., Trevitt, J. and Valsecchi, V. (1990) *The TVEI Story*, Milton Keynes: Open University Press.
- Deal, T. and Kennedy, A. (1993) Culture and school performance, *Educational Leadership*, Vol 40. (5) pp 14-15.

- Denholm, L. (1988) A powerful reproach to the system, Times Educational Supplement, 28 October.
- Denholm, L. (1990) Information Technology, London: CTC Trust.
- Denzin, N. (1978) Sociological Methods: A Source Book (2nd. edition), New York: McGraw-Hill.
- Department for Education (1993) Technology Colleges: Schools for the Future, London: DfE.
- Department for Education and Employment (1997) Excellence in Schools, White Paper, Cm 3681, London: The Stationery Office.
- Department of Education and Science (DES) (1986) A New Choice of School, London: DES.
- Diesing, P. (1971) Patterns of Discovery in the Social Sciences, Chicago: Aldine.
- Drucker, P. (1985) Innovation and Entrepreneurship, New York: Harper and Row, cited in Fullan, M. (with Stiegelbauer, S.) (1991) The New Meaning of Educational Change, London: Cassell, p 17.
- Dunn, B.cited in Whitty, G., Edwards, T. and Gewirtz, S. (1993) Specialisation and Choice in Urban Education: the City Technology College, London: Routledge.
- Education (1986), News in review, 17 October.
- Edwards T. (1993) Researching a controversial policy, Evaluation and Research in Education, Vol. 7, No. 1, pp3-9.
- Edwards, T., Gewirtz, S. and Whitty, G. (1991) From Assisted Places to City Technology Colleges, in G. Walford (Ed) *Private Schooling: Tradition, Change and Diversity.* London: Paul Chapman Publishing.
- Edwards, T., Gewirtz, S., and Whitty, G. (1992a) Whose Choice of Schools?, in M. Arnot and L. Barton (Eds.) Voicing Concerns: Sociological Perspectives on Contemporary Educational Reforms, Wallingford: Triangle Books, pp 143-162.
- Edwards, T., Gewirtz, S., and Whitty, G. (1992b) Researching a policy in progress: the City Technology Colleges initiative, *Research Papers in Education*. Vol.7. No.1. March, pp 79-104.
- Elkin, S. (1996) Striving for Success: Raising Standards in an Under-achieving School, London: Technology Colleges Trust.
- Elkin, S. (1997) Innovation Opens the Door, London: Technology Colleges Trust.
- Elkind, D. (1997) Schooling and family in the postmodern world, in A. Hargreaves (ed) Rethinking Educational Change With Heart And Mind, ASCD Yearbook, Alexandria, VA: ASCD.
- Everard, K. and Morris, G. (1985) Effective School Management, London: Harper Education.
- Fantini, M. (1980) Community Participation: Alternative Patterns and Their Consequence on Educational Achievement, Paper Presented at the annual meeting of the American Educational Research.

- Fatchett, D. (1991) CTCs all for one, none for all, Transition, Vol.3, No. 11, p 8.
- Fey, S. (1991) CTC Characteristics: A Discussion Document, London: CTC Trust.
- Fink, D. (1997) The attrition of change: a longitudinal study of a new and innovative school, Paper presented at the International Congress for School Effectiveness and School Improvement, Memphis, Tennessee.
- Forum (1987) Editorial: Enough is enough, Vol 29, No. 2, p 31.
- Fullan, M. (1993) Change Forces: Probing the Depths of Educational Reform, London: Falmer Press.
- Fullan, M. (with Stiegelbauer, S.) (1991) The New Meaning of Educational Change, London: Cassell.
- Gamble, A. (1983) Thatcherism and Conservative Politics, in S. Hall and M. Jacques (Eds.) *The Politics of Thatcherism*, London: Laurence and Wishart.
- Gewirtz, S., Whitty, G. and Edwards, T. (1992) City Technology Colleges: schooling for the Thatcher generation?, *British Journal of Educational Studies*, Vol. 40, No. 3, pp 207-217.
- Gerwirtz, S., Ball, S. and Bowe, R. (1995) Markets, Choice and Equity in Education, Buckingham: Open University Press.
- Gillborn, D. and Youdell, D. (1997) *The hidden costs of reform*, Paper presented at the annual meeting of the American Educational Research Association.
- Glaser B. and Strauss, A. (1967) The Discovery of Grounded Theory: Strategies for Qualitative Research, Chicago: Aldine.
- Glazier, J. (1986) CTCs So what new?, Education, 5 December, p 448.
- Gleeson, D. and McLean, M. (1994) Whatever happened to TVEI?: TVEI, curriculum and schooling, Journal of Educational Policy, Vol.9, No. 3, pp 233-244.
- Goodlad, J. (1984) A Place Called School: Prospects for the Future. New York: McGraw-Hill.
- Goodson, I. and Hargreaves, A. (1996) Teachers' professional lives: aspirations and actualities, in I. Goodson and A. Hargreaves (Eds.) *Teachers' Professional Lives*, London: Falmer Press, pp 1-27.
- Gorringe, R., Bridge, W., Silver, R., Henry, T., Limb, A., Ruddiman, K., Lewis, N. and Togher, J. (1994)

 Changing the Culture of a College, *Coombe Lodge Report*, Vol. 24. No. 3, Blagdon, Bristol:

 The Staff College, Coombe Lodge.
- Grace, G. (1995) School Leadership: Beyond Education Management, An Essay in Policy Scholarship, London: Falmer Press.
- Gross, N, Giacquinta, J. and Bernstein, M. (1971) *Implementing Organizational Innovations*, New York: Basic Books.

References

- Hagedorn, J. (1992) The Longer School Day and Five Term Year in CTCs: some initial observations, London: CTC Trust.
- Hall, G. and Hord, S. (1987) Change in Schools: Facilitating the Process, New York: State University of New York Press.
- Handy, C. (1984) Taken for Granted: Looking at Schools as Organisations, Harlow: Longman.
- Handy, C. (1993) Understanding Organisations (fourth edition), London: Penguin Books.
- Handy, C. (1996) in Times Educational Supplement, Management Review Update, 29 November, p 4.
- Handy, C. (1997) Schools for Life and Work, in P. Mortimore and V. Little (Eds.)
 - Living Education: Essays in Honour of John Tomlinson, London: Paul Chapman Publishing.
- Hargreaves, D. (1990) *The future of teacher education*, Hockerill Lecture, Frinton-on-Sea, Essex: Hockerill Education Foundation.
- Hargreaves, D. (1995) School culture, school effectiveness and school improvement, School Effectiveness and School Improvement, Vol. 6, No. 1, pp 23-46.
- Hargreaves, D. (1997) quoted by D. MacLeod, Guardian Education, 8 July.
- Hargreaves, D. and Hopkins, D. (1991) The Empowered School, London: Cassell.
- Her Majesty's Inspectorate (1992) Non-teaching Staff in Schools: a Review by HMI, London: HMSO.
- Huberman, M. (1992) Critical Introduction, in M. Fullan (Ed.), Successful School Improvement, Buckingham: Open University Press.
- Huberman, M. and Miles, M. (1984) Innovation Up Close, New York: Plenum.
- Inner London Education Authority (1984) *Improving Secondary Schools* (the Hargreaves Report), London: ILEA.
- Inner London Education Authority (1985) *Improving Primary Schools* (the Thomas Report), London: ILEA.
- Interim Advisory Committee on School Teachers' Pay and Conditions (1991), Fourth Report, London:
 DES
- Kay, C. (1992) A close run thing: the campaign against technology colleges at Hatcham, *Education Review*, Vol.6, No. 1. pp 28-33.
- Kennedy, K. and Duthie, J. (1975) Auxiliaries in the Classroom, Scottish Education Department, Edinburgh: HMSO.
- Kerlinger, F. (1970) Foundations of Behavioural Research, New York: Holt, Rinehart and Winston.
- Kingston, P. (1997) Three into five won't go, Guardian Education, 24 June.

- Kuzel, A. (1992) Sampling in qualitative inquiry, in B. Crabtree and W. Miller (eds.) Doing Qualitative Research (pp 31-44) (Research Methods in Primary Care Series, Vol.3.) Newbury Park, CA: Sage.
- Lawton, D. (1989) (Ed) *The Education Reform Act: Choice and Control*, London: Hodder and Stoughton.
- Lawton, D. (1992) Education and Politics in the 1990s: Conflict or Consensus? London: Falmer Press.
- Lawton, D. (1994) The Tory Mind on Education 1979 94, London: Falmer Press.
- Lawton, D. (1997) Promoting Improved Teaching and Learning: Policy Lessons, Background Paper for OECD Secretariat.
- Leslie, I. (1986) Working with Non-Teaching Staff, in M. Marland (ed) *School Management Skills*, London: Heinemann, pp 61-74.
- Levin, H. (1983) Cost-effectiveness: A Primer, Beverley Hills, CA: Sage.
- Levine, H. (1985) Principles of data storage and retrieval for use in qualitative evaluations, *Educational Evaluation and Policy Analysis*, Vol. 7, No. 2 pp 169-186.
- Lewis, N. (1994) Re-engineering the culture of a college, in R. Gorringe et al, Changing the Culture of a College, *Coombe Lodge Report*, Vol. 24. No. 3, Blagdon, Bristol: The Staff College, Coombe Lodge, pp 253- 264.
- Lieberman, A. and Miller, L. (1984) *Teachers Their World and Their Work*, New York: Teachers' College Press.
- Lieberman, A. and Miller, L. (1990) The Social Realities of Teaching, in A. Lieberman (Eds.) Schools as Collaborative Cultures: Creating the Future Now, pp 153-163. Basingstoke, Falmer.
- Limb, A. (1994) in R. Gorringe et al, Changing the Culture of a College, *Coombe Lodge Report*, Vol. 24. No. 3, Blagdon, Bristol: The Staff College, Coombe Lodge, pp 225-232.
- Lofland, J. and Lofland, L. (1984) Analysing Social Settings: A Guide to Qualitative Observation and Analysis, Belmont, CA: Wadsworth.
- Louis, K. and Miles, M. (1990) Improving the Urban High School: What Works and Why. New York: Teachers College Press.
- Louis, K. and King, J. (1993) Professional cultures and reforming schools: does the myth of Sisyphus apply? in J. Murphy and P. Hallinger (Eds.) Restructuring Schooling: Learning from Ongoing Efforts, London: Sage Publications, pp 216-250.
- MacGilchrist, B. (1994) A Study of the Development and Impact of Development Planning in Primary Schools, PhD Thesis, London University.

- Maclure, S. (1987) Pupil perceptions of school improvement, in D. Hopkins (Ed) *Improving the Quality of Schooling*, London: Falmer Press, pp181-187.
- McCulloch, G. (1989a) City Technology Colleges: an old choice of school, *British Journal of Educational Studies*, Vol. 37, No. 1, February. pp 30-43.
- McCulloch, G. (1989b) The Secondary Technical Schools: A Usable Past, Lewes: Falmer Press.
- McDonald, B. (1991) Critical Introduction: From Innovation to Reform A framework for Analysing Change, in J. Ruddock, *Innovation and Change*, Buckingham, Open University Press.
- McMaster, M. (1995) The Intelligent Advantage: Organising for Complexity, Knowledge Based Development Company Limited.
- Marland, M. (1978) The teacher, the ancillary and inner-city education, Unpublished paper.
- Mathieson, M. and Bernbaum, G. (1988) The British Disease: a British tradition? *British Journal of Educational Studies*, Vol. 36, 126-74.
- Mayo, E. (1933) The Human Problems of an Industrial Civilisation, New York, Macmillan.
- Miles, M. and Huberman, A.M. (1984) Qualitative Data Analysis: A Sourcebook of New Methods, London: Sage Publications.
- Miles, M. and Huberman, A.M. (1994) Qualitative Data Analysis: An Expanded Sourcebook, Second Edition, London: Sage Publications.
- Miller, J. (1989) Study of factors influencing the role of the welfare assistants in county maintained primary and infant schools in Croydon, M.Ed. Dissertation, Kingston: Kingston University.
- Miller, K. (1991) Schooling for life, Transition, Vol. 91, March, pp 15-16.
- Morrell, F. (1989) Children of the Future, London: Hogarth Press.
- Mortimore, J. and Blackstone, T. (1982) Disadvantage and Education, London: Heinemann.
- Mortimore, J. and Mortimore, P. (1995) Innovatory staffing practices in City Technology Colleges, School Organisation, Vol.15, No. 2, pp.145-53.
- Mortimore, J. and Mortimore, P. (1996) Staffing Innovations in City Technology Colleges: Policy into Practice, in B. Bernstein and J. Brannen (Eds.), *Children, Research and Policy*, London: Taylor and Francis, pp 151-168.
- Mortimore, P., Sammons, P., Stoll, L., Lewis, D. and Ecob, R. (1988) School Matters: the Junior Years, London: Paul Chapman Publishing.
- Mortimore, P., Mortimore, J. and Thomas, H., with Cairns, R. and Taggart, B. (1992) *The Innovative Uses of Non-Teaching Staff in Primary and Secondary Schools*, London: DES.
- Mortimore, P. and Mortimore, J. with Thomas, H. (1994) Managing Associate Staff: Innovation in Primary and Secondary Schools, London: Paul Chapman.

- Moyles, J., with Suchitzky, W. (1997) 'Jill of All Trades': Classroom Assistants in KS1 Classrooms,
 University of Leicester School of Education, in collaboration with the Association of Teachers
 and Lecturers, London: ATL Publications.
- Murphy, R., Brown, P. and Partington, J. (1990) An Evaluation of the Effectiveness of CTCs' Selection Processes, Report to the Department of Education and Science.
- Nash, I. (1988) Still struggling to change out of first gear, Times Educational Supplement, 14 October.
- Nias, J., Southworth, G. and Yeomans, R. (1989) Staff Relationships in the Primary School: a Study of Organizational Cultures, London: Cassell.
- Organisation for Economic Co-operation and Development (1996) Education at a Glance: OECD Indicators, Paris: OECD.
- Ouston, J. (1990) The Evaluation of Education 2000: The Hertfordshire Project, final report to the DES.
- Owens, R. (1995) Organizational Behaviour in Education, Needham Heights, MA: Allyn and Bacon. Oxford English Dictionary (1970), Vol.V, Oxford: Clarendon Press, p 314.
- Ozga, J. (1990) Policy research and policy theory, Journal of Education Policy, Vol.5, pp 359-363.
- Peters, T. and Waterman, R. (1982) In Search of Excellence. New York: Harper and Row.
- Pring, R. (1987) Privatization in Education, Journal of Education Policy, Vol. 2. No.4. pp 289-299.
- Purkey, S. and Smith, M. (1983) Effective schools: a review, *Elementary School Journal*, Vol. 83, No. 4, 427-452.
- Ranson, S. (1990) From 1944-88: Education, citizenship and democracy, in M. Flude and M. Hammer (Eds.), *The Education Reform Act 1988: Its Origins and Implications*, Lewes: Falmer Press.
- Reeder, D. (1981) A recurring debate: education and industry, in R. Dale et al (Eds.) Education and the State, Vol.1, Schooling and the National Interest. Lewes: Falmer Press.
- Reid, K., Bullock, R., and Howarth, S. (1988) An Introduction to Primary School Organisation,
 London: Hodder and Stoughton.
- Reynolds, D. and Packer A. (1992) School effectiveness and school improvement in the 1990s, in D. Reynolds and P. Cuttance (Eds), *School Effectiveness*, London: Cassell.
- Richards, L. (1994) Workshop on the QSR NUD.IST Qualitative Data Analysis Software, Melbourne:

 Qualitative Solutions and Research Pty Ltd.
- Riches, C. (1981) Non-teaching staff in primary and secondary schools, E323 Management and the School, Block 6, The management of staff. Milton Keynes: Open University Press.
- Rosenholtz, S. (1989) Teacher Workplace: The Social Organization of Schools, New York: Longmans.

- Ruddiman, K. (1994) in R. Gorringe et al, Changing the Culture of a College, *Coombe Lodge Report*, Vol 24. No.3, Blagdon, Bristol: The Staff College, Coombe Lodge, pp 243-252.
- Ruddock, J. (1991) Innovation and Change. Buckingham: Open University Press.
- Rutter, M., Maughan, B., Mortimore, P. and Ouston, J. (1979) Fifteen Thousand Hours: Secondary Schools and their Effects on Children, London: Open Books.
- Sarason, S. (1971) The Culture of the School and the Problem of Change, Boston: Allyn and Bacon.
- Sarason, S. (1982) (revised edition) The Culture of the School and the Problem of Change. Boston: Allyn and Bacon.
- Sarason, S. (1990) The Predictable Failure of Educational Reform, San Francisco, CA: Jossey-Bass.
- Saunders, M. (1986) TVEI A Tiger by the Tail?, Business Education, November.
- Schein, E. (1985), Organizational Culture and Leadership, San Francisco, CA: Jossey-Bass.
- Schmuck, R. (1990) Organisation development in schools: contemporary concepts and practices, in Gutkin, T. and Reynolds, C. (Eds), *The Handbook of School Psychology*, 2nd edition. New York: Wiley, p 899.
- School Teachers' Review Body (1992), First Report, London: HMSO.
- Selltiz, C., Wrightsman, L. and Cook, S. (1976) Research Methods in Social Relations, New York: Holt, Rinehart and Winston.
- Sexton, S. (1987) Our Schools A Radical Policy, London: Institute of Economic Affairs.
- Simon, B. (1988) Bending the Rules, London: Lawrence and Wishart.
- Smith, D. and Tomlinson, S. (1989) The School Effect: A Study of Multi-Racial Comprehensives, London: Policy Studies Institute.
- Smith, L.M. (1978) An evolving logic of participant observation, educational ethnography and other case studies, in L. Shulman (Ed.) Review of Research in Education, Vol. 6, Itasca, IL: Peacock, quoted in M. Miles and M. Huberman (1984) Qualitative Data Analysis: A Sourcebook of New Methods, London: Sage Publications.
- Socialist Educational Association (1987) Join the Campaign Against City Technology Schools: an SEA campaign leaflet, London: SEA.
- Staessens, K. (1993) Identification and description of professional culture in innovating schools, Qualitative Studies in Education, Vol.6, No. 2, pp 111-128.
- Stinchcombe, A. (1965) Social structure and organisations, in J. March (Ed.), Handbook of Organisations, New York: Rand McNally.
- Stoll, L. and Fink, D. (1996) Changing Our Schools, Buckingham, Open University Press.

- Straw, J. (1988) Education, 8 July, cited in Whitty, G., Edwards, T. and Gewirtz, S. (1993) Specialisation and Choice in Urban Education: the City Technology College Experiment, London: Routledge.
- Tangerud, H. and Wallin, E. (1986) Values and contextual factors in school improvement, *Journal of Curriculum Studies*, Vol. 18, 1, pp 45-61.
- Taylor, C. (1988) Climbing towards a skilful revolution, Times Educational Supplement, 22 January.
- Taylor, C. (1989) Times Educational Supplement, 10 March.
- Thomas, H. and Martin, J. (1996) Managing Resources for School Improvement: Creating the Cost-effective School, London: Routledge.

Times Educational Supplement, 27 June 1987.

Times Educational Supplement, 26 February 1988.

Times Educational Supplement, 16 September 1988.

Times Educational Supplement, 14 October 1988.

Times Educational Supplement, 11 November 1988.

- Tizard, B., Mortimore, J. and Burchell, B. (1981) Involving Parents in Nursery and Infant Schools, London: Grant McIntyre.
- Tomlinson, S. (1994) (Ed) Educational Reform and its Consequences, London: Institute for Public Policy Research/Rivers Oram Press.
- Tomlinson, S. (1995) *Teachers' Views of 14-19 Education: a Pilot Project*, London: National Union of Teachers, Goldsmiths College and the Institute of Education.
- Torrington, D. and Weightman J. (1989) *The Reality of School Management*, Oxford: Blackwell Education.
- Tuckman, B. (1972) Conducting Educational Research, New York: Harcourt Brace Jovanovich.
- Tyack, D. and Cuban, L. (1995) *Tinkering Towards Utopia: A Century of Public School Reform*, Harvard, MA: Harvard University Press.
- Vincent, C. and Tomlinson, S. (1997) Home-school relationships: 'the swarming of disciplinary mechanisms', *British Educational Research Journal*, Vol. 23, No. 3, pp 361-377.
- Walford, G. (1991a) Choice of school at the first city technology college, *Educational Studies*, Vol. 17, No. 1, pp 65-75.
- Walford, G. (1991b) Researching the City Technology College, Kingshurst, in G. Walford (Ed.) *Doing Educational Research*, London: Routledge. pp 82-100.
- Walford, G. (1994) Choice and Equity in Education, London: Cassell.
- Walford, G. and Miller, H. (1991) City Technology College, Milton Keynes: Open University Press.

References

- Walker, R. (1980) Making sense and losing meaning: Problems of selection in doing Case Study, in H. Simons (ed.) Towards a Science of the Singular, Centre for Applied Research in Education, University of East Anglia, pp 222-235.
- Waller, W. (1932) The Sociology of Teaching, New York: John Wiley.
- Warnock, M. (1988) A Common Policy for Education, Oxford: Oxford University Press.
- Warrington, M. (1992), Managing the Support Staff: Report for the Secondary Heads Association, Leicester: SHA.
- Weitzman, E. and Miles, M. (1993) Computer-aided qualitative data analysis: A Review of Selected Software, New York: Center for Policy Research.
- Whitty, G., Edwards, T. and Gewirtz, S. (1993) Specialisation and Choice in Urban Education: the City Technology College Experiment, London: Routledge.
- Wideen, M. (1987) Perspectives on staff development, in M. Wideen and I. Andrews (Eds.), Staff Development for School Improvement, Lewes: Falmer Press, pp 1-15.
- Williams, R. and Yeomans, D. (1994) The Technical and Vocational Education Initiative and school autonomy in the management of curriculum change, *Research Papers in Education*, Vol.9, No.3, pp 303-319.
- Yeats. W.B. (1928) 'Among Schoolchildren'.

Appendix One

The 32 Innovative Posts

Management support (10)

public relations
site/welfare
director of finance/administration
parent/college relations
site/buyer
systems manager
personnel
site/facilities manager
systems manager
site/facilities manager

Curriculum support (13)

information resources manager teacher/technician learning liaison senior science technician senior co-ordinating technician technician/tutor curriculum support broadcaster/tutor information resources manager video/film technician media instructor LTS trainee business links

Management and curriculum support (9)

IT manager graphic designer IT manager development manager IT manager vocational assessments projects manager senior manager technician manager

Appendix Two

Institute of Education

INNOVATORY STAFFING PRACTICES IN CITY TECHNOLOGY COLLEGES PROJECT

Interview schedule

ASSOCIATE STAFF /INNOVATIVE POSTHOLDER

NAME

COLLEGE

Date

Thank for co-operation Confidentiality of interview

Introductory remarks about project (refer to Information Sheet)

I should like to ask you about your role in relation to new ways of using the skills of both teachers and associate/support/nonteaching staff here inCTC. In addition, we are interested in the process of change, what stimulated the innovation, the planning involved, and the implementation process.

TAPE?

Can I start by asking a broad question about

Q1 What do you consider innovative about the way staff are used in this College?

Q2 In your judgement, has the relatively greater freedom of CTCs resulted, in this College, in the creation of more innovative posts - or more innovatory use of traditional posts - than in LEA-maintained schools?			
Q2A Do you think the business and enterprise ethos of CTCs led to the appointment of people from outside education or with a substantial pre-teaching career outside of education?			
If 'Yes', get details.			
It has been argued that it is important for those employed in innovatory posts - and those working closely with them - to understand the <i>meaning</i> of innovation and change.			
Q2B What are your views?			

Q3 Do you have a job description? (get copy if possible)
Who line manages you?
Q4 Can I ask you if you are a qualified teacher?
If 'Yes', how long have you been qualified?
If 'No', what is your career background?
What led you from there into teaching?
Q5 How long have you been at
(If at College prior to this post. continue. If not, go to Q13)

Genesis of post
Q7 Do you know when/ how did your post come to be established?
Genesis / stimulus?
Do you know if any staff audit carried out?
Review
Q8 Do you know if any other options were considered?
To what extent was cost a factor in the staffing decisions?
To what extent was the specific character of this CTC a factor?

Q9 What did you know about the post before you took it on?
Q10 How great a change was it to what you were doing before?
What are your views on that?
Q11 Did you feel confident that you would be able to meet the challenge of the new post?
Q12 Did the post call for more time/ effort than you expected?
What did you feel about that?

Q13 What is the purpose of the innovative post?

- responsibilities?
- * promote business/enterprise
- * CTC specific
- * support technology
- * assume budget/financial responsibilities for school.
- * assume buildings/maintenance/site manager responsibilities for school.
- * take routine administrative/financial tasks from HT/senior teacher.
- * take routine clerical/admin/financial tasks from HT/senior teacher.
- * take routine 'domestic', room/equipment org. from teacher.
- * aid teacher in providing curriculum.
- * aid pupils by making curriculum more accessible.
- * PR/income generation/sponsorship.
- * support IT/information
- * library resources.
- * pastoral advice
- * other

(Brief statement only of what postholder actually does)

Clear <u>educational</u> Purp.	No	
	Yes	
Clear <u>financial</u> Purp.	No	
	Yes	
Clear <u>pastoral/adv.</u> Purp.	No	
Clear <u>indust/ent.</u>	Yes	
<u></u>	No	
	Yes	
Clear <u>technol. purp.</u>	No	
	Yes	
Clear <u>other</u> Purp.	No	
	Yes	

Q14a. b. role?	Are there clear boundaries betwee			
c. d.	How are they established and ma Are there "grey" areas?	intained?		
		Some tasks <u>not</u> done	No	
			Yes	
		Boundaries defined	No	
			Yes	
		Grey areas	No	
			Yes	
Q15	What are your views on boundari	ies/grey areas?		
		Helpful to have boundaries defined	No	
			No Yes	
			1 62	

*	4 1 (4-11-0/11-0)		
*	at regular (daily?/weekly?) meetings		
*	on proforma		
•	other		
		Communicatio	n
		informal	
		mormai	
		formal	
045			1
Q 17	Do you attend:	routinely	when invited
		No Yes	No Yes
	Team		
	Faculty		
	Staff		
	SMT		
	Governors		
	AS		
	Parents		
	Other		
Q18	Have you received any		
*	pre- training for your post	١٥.	
*	staff development and INSET (LEA/colle	ge)?	
*	appraisal		
		Special training	
			No
			Yes
		Appraisal	No
			Yes

Q16 How does your line manager communicate needs/demands to you?

* informal, in passing

informal, in passing

BENEFITS

Q19 i.	Are there, in your view, any <u>benefits</u> from y the organisation and management of the (Briefly state benefits)		0 :
		Perceived benefits	
			No
			Yes direct/indirect
ii.	the deployment of other teachers or AS a	as a consequence of you	ur post?
(Brie	efly state benefits)		
		Perceived benefits	
		to deployments of T	S
			No
			Yes direct/indirect
		Perceived benefits to deployment of AS	3
			No
			Yes direct/indirect

iii.	the organization	and management	of teaching and	l learning.
	the or sameation	WILL WINGHISH CHILDRE		

- * more adult/student contact time?
- * enhanced curriculum opportunities?
- * improved recording and assessment?
- * freedom from routine tasks?
- * more industrial/commercial experience for staff/students? other

(Briefly state details)

	Perceived benefits	
		No
		Yes direct/indirect
O Any evidence of positive impact on: iefly state nature of evidence) students' learning/progress?		
students' learning/progress? information/knowledge/skills?		

No

_direct/indirect

direct/indirect

direct/indirect

Yes

Other

Learning/progress

Info/knowl/skills

k	job satisfaction		
k	career aspirations		
k	self-esteem		
k	other?		
		T	<u> </u>
		Perceived positiv	e effect
		on postholder	
			No
			Yes
Ω22	Are any of these benefits different	than what you expected when	von took un the nost
(Brie	efly state benefits)	than what you expected when	you took up the post.
(1)110	ony state benefits,		
		Unexpected bene	-fits
		Vitapities Den	,11 1 13
			No
			Ves

Q21 Positive effect on you

	ou think schools in the maintained sector could learn from your innovative postCollege?
If 'yes', in	ı what ways?
- wi	e you attempted to disseminate information about your post? ithin the CTC · GMS network
OI.	GMS network
- be	eyond

n	TC	RF	NE	TT	TC

Can we talk now about any problems or disbenefits of t	he specific post
Implementation	
Q25 Were you aware of any problems in implementing (probe)	the new post?
Q26 Did you have any problems with your new role?	
(probe)	
Q27 Disbenefits for (i) The organization and management of the college (Brief statements)	??
	Perceived disbenefits
	No
	Yes direct/indirect

iii)	Disbenefits to the deployment of other AS as a consequence of your innovatory						
ost?	(Brief statement)						
		Perceived disbenefits					
		No					
		Yes direct/indirect					
v)	Disbenefits to the organization and mana * teacher hours? * curriculum opportunities * additional resources/equipment? * renovations/building works?	gement of teaching and learning					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? other. 	gement of teaching and learning					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? 	gement of teaching and learning					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? other. 	gement of teaching and learning					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? other. 	gement of teaching and learning					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? other. 	gement of teaching and learning Perceived disbenefits					
v)	 teacher hours? curriculum opportunities additional resources/equipment? renovations/building works? other AS posts? other. 						

Q28	Any evidence of negative effects on students' l (Brief statement)	earning and progress?
		Perceived effects
		No
		Yes direct/indirect
Q29	Any negative effects on you? (Brief statement)	
		Perceived <u>negative</u> effects
		No
		Yes direct/indirect
Man:	40 min a/a valu a4i a n/a a 4ifi a 4i a n	
	toring/evaluation/modification Have the post been monitored in any way?	
	s' how - by whom	
п ус	s now - by whom	
If 'no	' - probe why not	
Q31]	Has the post been evaluated?	
If 'ye	s' - by whom - internal? external?	
Findi	ngs?	

Q32 Have any modifications been made as a result of the monitoring and evaluation, or for any other reasons?
If 'yes' - probe
Q33 Would you like to see any further development of your post?
Institutionalisation
Q34 Is your innovatory post, in your view, now accepted as part of the College structure and organization?
Q35 Do you think the innovation achieved its purpose?
Q36 Finally - a few questions about pay and conditions of employment term time/ 40 weeks/ year round hours per week pay scale point on scale allowance approx gross annual sal PRP Negotiating rights union membership
THANK YOU FOR YOUR TIME AND CO-OPERATION
Reminder about confidentiality

Any absolutely key points from interview 1. 2. 3. Collected Job description_____ Dev. Plan Financial info. Sch. Brochure **Evaluations** Other

T

 \mathbf{C}

Appendix Three

FINANCIAL DATA COLLECTION

INNOVATIVE STAFFING PRACTICES IN CITY TECHNOLOGY COLLEGES PROJECT

Note: The notes below are intended to provide general guidance to assist in the completion of the attached pro-forma. We recognise that completion of parts of the form may not be possible in some cases but would ask you to provide information where at all possible. Clearly, the amount and quality of the data collected will affect the accuracy of an assessment of the costs and benefits of the innovation.

A1 NEW COSTS

These are the costs which can be attributed to the innovation.

- A2 Name of AS postholder (AS p/h).
- A3 Hours worked each week by AS p/h.
- A4 Salary/wages (plus National Insurance) per week of AS p/h.
- A5 Estimated cost of room(s) used by AS p/h (office, workshop, etc) calculated on weekly basis. (Please indicate if calculated on basis of space, heating, lighting).
- A6 Estimated cost of any equipment used by AS p/h (computer, printer, etc) calculated on weekly basis.
- A7 Proportion of salary (and National Insurance) of AS p/h's line manager for estimated time for supervision of p/h, calculated on a weekly basis.
- A8 Estimation of any other costs of new AS post (please specify type and cost). This may include 'one-off' costs to establish new office/equipment.
- A9 Total cost per week of A4 A8.

BI SOURCES OF FUNDING AND/OR RESOURCES RELEASED

- If the innovation is funded from an increase in the college budget, please write "new money" in B1.
- ii. The innovation may be <u>releasing</u> the time of staff (eg a bursar doing tasks previously carried out by the principal. In this case, please provide estimates on the costs and time saved. Alternatively, the innovation may involve staff changes (eg appointing an IT Manager when a technician leaves). In this case, please provide an estimate of the cost and time of the previous use of funds.
- B2 Name of post (teaching or associate) released or note of other ways in which resources for new AS post have been found.
- B3 Hours per week from released post (if appropriate).
- Salary/wages (plus National Insurance) per week of released post or other costs released (calculated on weekly basis).
- B5 Estimated cost of room(s) released, calculated on weekly basis. (Please indicate if calculated on basis of space, light, heating.)
- B6 Estimated cost of any equipment released, calculated on weekly basis.
- B7 Estimated cost of supervision by line manager of former post, now released, calculated on weekly basis.
- B8 Estimation of any other savings from release of post or other resources (please specify type and amount of savings).
- B9 Total savings per week of B4 B8.

C. OPPORTUNITIES FORGONE

Could you give some information on other alternatives which were considered before this innovation was decided upon.

CONFIDENTIAL

INNOVATIVE STAFFING PRACTICES IN CITY TECHNOLOGY COLLEGES PROJECT NAME OF COLLEGE: FORM COMPLETED BY:

(NB AS p/h = AS postholder)

TEL NUMBER:

A1 New Costs	A2	A3	A4	A5	A6		A7	A8	A9
	Name of post	we of post Weekly Salary/wages (+NI) of AS p/h AS p/h	(+NI) of	Cost of room(s) used by AS p/h	Cost of equipment and materials		Estimated cost of supervision	Any other costs	Total cost
			AS p/h		item (specify)	cost	by L/M	incurred	A4-A8
				:					
B1	B2	В3	B4	B5	B6	·	B7	B8	B9
Sources of Funding and/or Resources	•	wk released	Salary/ wages (+NI) of released post	Cost of room(s) released	Cost of equipment and materials released		Estimated cost of supervision	Any other costs	Total of released
Released		(if approp.)			item (specify)	cost	time released	released	costs B4-B8
C Opportunities Forgone	Other alterna	atives considered	d (see note):			.1		<u> </u>	

LONDIN UNIV