

Changing Technological Management: Teaching, Learning & Technology Roundtables



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Further Information

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Foreword

This report is an investigation into how Teaching, Learning and Technology Roundtables (TLTRs) – the US-based TLT Group’s prescription for integrating technology with teaching and learning in post-16 institutions – transfers to the UK context of FE and HE. In addition to trialling the roundtables in the UK, the team conducted interviews and focus groups with US and Canadian TLTRs to better understand the concept.

When this investigation was being carried out, the context in F/HE was of increasing interest in e-learning, but from a small base and within a relatively stable institutional culture. The authors believed that much of the turbulence and rapid change in the institutions studied was of a ‘local’ nature. Now, with the likely advent of a changed funding regime, a rash of mergers both within-sector and cross-sector, and increasing engagement of institutions in the e-learning agendas of consortia and national agents of change (eUniversities, Ufi, NHS University, College Online), we firmly believe that the lessons learned from this study will be of great value to managers and staff engaged in the e-learning agenda for their institutions and consortia. *“May you live in interesting times.”*

Finally, I would like to add a note of thanks to the many people who contributed to this study by: completing our on-line questionnaire, talking to us on the phone and in person or participating in a focus group. Particular thanks to the ‘anonymous’ trial institutions: it is a great pity that the individuals there cannot be identified. The information everyone provided was invaluable and, in many cases, inspirational.

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Executive Summary

This is a report of an investigation into The TLT Group's Teaching, Learning and Technology Roundtable (TLTR) concept, which has been used in over 400 post-16 institutions in North America. The basic premise of the idea was to allow such institutions make better informed decisions *vis-à-vis* the integration of ICT with teaching and learning. It is stated that this is most effectively done by engaging individuals and groups, at the vanguard of teaching, into a dialogue with one another.

The TLTR approach was trialed in two diverse UK institutions: a pre-1992 university and a further education college. A post-1992 university, which had a structure that closely resembled a TLTR was also examined. To better understand TLTRs, the team conducted face-to-face interviews, telephone interviews and focus groups with US and Canadian TLTRs. This report highlights the critical success factors that initiate TLTRs and make them effective bodies.

0.1 Recommendations

In our view a TLTR can be defined as a sliding scale. At one end of the scale there is the 'purist' form, a highly structured, prescriptive methodological 'cookbook'; at the other end there lies a very loose definition, a general approach characterised by broad membership, discussion, information-sharing and mutual respect. Between the two exists a 'partial' TLTR that picks and chooses tasks appropriate to the requirements of each situation and its corresponding challenges. All seek to effect technological change and organisational effectiveness through learning.

The ways in which one hopes to use TLTR may well define at what point along the sliding scale one positions oneself. Institutions that have a very specific project to implement may well utilise the full strict methodology, while roundtables with a long-term strategic management remit seem to use less.

In the strictest sense it is our view that TLTRs are neither a new nor are an effective way of managing technological change for a whole community. However, there are many lessons that may be drawn from our research into the international experience of the TLT Group and the roundtable methodology. Our data suggests that there is little distinction between the 'roundtable' experiences of North American institutions and the 'collaborative' or 'collegial' experiences found within the UK. As such we present recommendations that seek to enhance what many UK institutions are engaged in already.

We present our recommendations in the following three areas:

- recommendations for institutions wishing to create collaborative change structures or enhance existent ones in order to manage technological change;
- recommendations for the Joint Information Systems Committee (JISC); and
- recommendations for researchers who may wish to extend our work or be informed by it.

0.2 Recommendations for Institutions Wishing to Create Collaborative Change Structures or Enhance Existent Ones to Manage Technological Change

1. We have found that while pure TLTRs are not easy to implement, nor are they impossible. We have found that they may be an effective way of managing short-term technological projects with a defined end date. The methodology has not been proven to be sustainable over a long period of time.
2. Though TLTRs are a seemingly simple concept, engineering the introduction of multiple viewpoints into the decision-making process increases its complexity. The starting point for sustaining technological change is not a prescription, but an understanding of the organisation. In order to gain such an understanding, managers need to comprehend the organisation's values, culture, structure, leadership and micro-political dynamics. In addition the managers should be aware of their own sphere of influence.
3. We have found a correlation between the successful introduction of a highly structured TLTR and institutional size. In smaller organisations the acceptability of prescriptive methods is generally higher, however even in these cases evidence suggests that the sustainability of the prescription was not great.
4. From this we would argue that the introduction of a purist TLTR is highly unlikely to benefit many institutions in F/HE in the UK.
5. We have overwhelming evidence to suggest that the United Kingdom Post-16 education sector has similar experiences and structures to those seen in North American institutions. We see the enhancement of already existent structures to be more appropriate than the creation of new and specific bodies.
6. We feel from our experiences that the critical success factors for any collaborative change forum are as follows:
 - *Purpose*: The constitution, terms of reference, decision-making processes and location of the forum within the organisational structure have to be clearly stated. The purpose of the forum should be known and agreed upon not only by its membership but across the entire institution.
 - *Space*: The way in which individuals within the forum are allowed to think and reflect should encourage creativity, break down barriers and allow experiences to be seen as equally valid regardless of an individual's position within the organisation.
 - *Informality*: The more informal forums tend to be the ones which are more creative and which engender open and honest debate.
 - *Time*. The frequency and length of meeting time are important factors governing the success of the forum. We have found that optimum frequency is about twice a term, with a maximum meeting length of ninety minutes. A great

many institutions, particularly those with very heavy teaching commitments, report that freeing up staff teaching time for participation in meetings is crucial.

- *Timescale.* Collaborative change requires long-term commitment by both senior management and participants.
 - *Resources:* There is correlatory data to suggest a link between funding and the implementation and sustainment of collaborative structures.
 - *Broad interpretation of cost:* In institutions with very heavy teaching loads we have found that drawing staff members to participate in meetings occurs at a cost. This is generally borne by either the students (in terms of cancelled lectures) or by fellow staff covering sessions. We have found that if this cost goes unrecognised, it may result in institutional tension that undermines the success of the forum.
 - *Membership.* Collaborative bodies should be diverse. They should include senior management (to provide legitimacy to the body), technologists, teachers, technical staff, librarians, administrators and students, to reflect the totality of the institution.
 - *Disposition of the group.* A group can include the sceptics or non-sceptics. If you choose to include non-sceptics in the forum, it may engender greater stability. If you choose to include the sceptics, it may result in more heated exchanges, but it may also provide for a more realistic appraisal of technology in your institution. If sceptics are brought into the forum it is vital that they be allowed to express themselves; the forum should not be used to cajole individuals into accepting the 'world view' of the group. It has been our experience that this can result in disenchantment, disengagement and widespread loss of respect, for both the roundtable itself and any senior management that are closely identified with it.
 - *Leadership.* It is not essential that the most senior individual lead the forum. In our experience the best forums were the ones in which the leader exerted respect, specific knowledge and charisma, while displaying sufficient understanding of the social networks and political dynamics to keep the forum vibrant and productive. In summary, we recommend a view of leadership that veers away from the traditional, hierarchical models.
 - *Commitment.* The organisational resources and effort required to ensure that a roundtable be effective are such that a considerable *sustained* commitment is required, going beyond (but also including) the senior management team to encompass the whole organisation.
7. It is essential when considering approaches to organisational and technological change that no single method be discounted or given disproportionate weighting. In fact we have found that where roundtables are implemented, they are often best used as part of a portfolio of initiatives. The initiatives selected and the weight given to each one is entirely contingent upon the organisation.

8. The authors feel that an obvious extension of collaborative mechanisms is at the LEA level of secondary education.

0.3 Project Management Recommendations

Over the research period the project ran into distinct problems that may well have been associated with the conceptualisation of the original project remit. These were as follows:

1. *Access.* As originally conceived, this project sought to trial a change management methodology within three educational institutions operating within turbulent environments. This presented the authors with two distinct problems: a) ensuring that the project acquired appropriate management support, and b) seeing that this support was maintained. Changes in senior managers, strategic direction and the policy environment often conspired to put the project team in difficult situations, with modifications made to the structure of the project more or less 'on the hoof'. The project team would recommend that future calls reflect flexibility in accordance with the changing nature of the participant organisations.
2. *Duration.* This was also a project that sought to inquire into the effectiveness and impact of management intervention (TLTRs) on an organisation's culture and effectiveness. We strongly recommend that any future project tackling issues of organisational change be allowed the time to evaluate any policy shifts made as a result of the intervention itself. In this case, the project would have had to be extended by at least an additional 24-36 months.
3. *Focus.* The genesis of the methodology was tailored to a particular sector: the *University Sector in North America*. With minor modifications this was altered to suit the community college sector. In the UK we found a diversity of structures and mechanisms that echoed the North American experience and crossed sectoral boundaries. Despite this correlation a suspicion remains within the project team (which is possibly reflected in this report) that this is a methodology that blurs distinctions between sectors but is led by HE. Given the challenges that face the whole of the post-16 education sector, the project team would like to add its voice in calling for more specific research into the organisational impact of technology on Further Education and the skills sector, and in particular on Adult and Community Learning Centre settings.

0.4 Recommendations for Further Research

We accept that individuals within any educational organisation are unlikely to share a vision for technological change. Even when those visions do coincide, individuals are unlikely to agree on the ways in which to articulate and realise that vision. We do not feel that highly structured TLTRs are able to bring divergent viewpoints together meaningfully and translate that into institutional action.

Chapter One: Introduction

We don't know what will be happening to us in the future. Modern technology is taking over. What will be our place?

(Cited in Zuboff, 1988: 3)

1.0 Introduction

In 1999 the JISC (Joint Information Systems Committee) Committee for Integrated Environments for Learners (JCIEL) had a call for research on the theme of 'Flashlights and Roundtables',

We are interested in evaluating whether the American Association for Higher Education's (AAHE) Teaching and Learning Technology Roundtable (TLTR) methodologies for improving the use of technology in teaching and its effective evaluation will transfer effectively to a UK environment. A proposal from a group of institutions intending to work together, initially for a one year period, with the methodologies would be preferable. JISC funding would be to allow the methodology to be deployed and to analyse, evaluate and disseminate, rather than to pay for the actual deployment of educational technology.

Duration of project: up to 18 months. Maximum grant available: £60,000.

(JCIEL, 1999)

This report represents an investigation which was funded under the call for a duration of eighteen months, from July 2000 until November 2001. The project was led by the Telematics in Education Research Group (TERG, see Appendix A) at the School of Computing and Management Sciences at Sheffield Hallam University.

Teaching, Learning and Technology Roundtables (TLTRs) were devised by The TLT Group (Contact Details for The TLT Group, see Appendix B) in the US in the mid-1990s. The basic premise of the idea was to allow further and higher education institutions (F/HEIs) make better informed decisions *vis-à-vis* the integration of information and communication technologies (ICT)¹ with teaching and learning. It is posited that this is most effectively done by engaging individuals and groups at the vanguard of teaching and learning into a dialogue with one another (The TLT Group, 2000, see Chapter Two, 'Teaching, Learning and Technology Roundtables').

TLTRs are therefore potentially of enormous value to organisations like F/HEIs, especially given that they have been characterised as "too fragmented, wasteful and inefficient" (Hicks, 1997) and it has also been propounded that "exchange of information is not sufficiently exercised" (Tann, 1995). However, it is important to stress that, in investigating TLTRs, this report does not claim to have located the 'holy grail' of integrating ICT with teaching and learning. This is because, the authors of this report subscribe to the view that there is no absolute best practice and should be no optimal state to which F/HEIs should aspire. In short, the investigators support the criticism that there is a general tendency among ICT researchers to search for the single universal blueprint that will transform any type of institution, in any situation, from a condition of mediocrity to

¹ For the purposes of this report, ICT, IT and ILT are used interchangeably and reflect the different terminology in the UK F/HEI and US sectors.

excellence (Baskerville and Smithson, 1995). The authors also support Stoner's (1996) answer to the question, 'is there a right way to implement learning technologies?' He answers quite bluntly,

Unfortunately there is no single right way, because the complexity of change management is such that it is unrealistic to seek "universal solutions."

(Stoner, 1996: 12)

By eschewing a prescriptive thrust, which tends to trivialise complex management and organisational issues, the authors also take the view that F/HEIs will learn more from descriptions and the actual experience of other institutions, groups and individuals and that they should not endeavour to *copy* solutions but attempt to *learn* from them. In short, it is necessary to acknowledge that the process of managing technological change is as much a social and organisational accomplishment as a technical one (Carter and Mistry, 2001; 2002; Mistry, 2001).

1.1 Aims and Objectives

The purpose of this investigation was to critically analyse the reception, penetration and usefulness of the TLTRs in three very diverse institutions: a pre-1992 university, a post-1992 university and a further education college in the North of England. In the process the investigators wished to assess the merit, or otherwise, of TLTRs as a methodology and approach for integrating teaching and learning with technology. The project aimed to outline strategies for the successful implementation of TLTRs in the above institutions and clarify the factors which encouraged and/or deterred the adoption of the methodology.

1.1.1 Investigation Aims

The investigation had four principal aims:

- to establish whether the TLTR methodology transfers to the UK environment;
- to discover whether there is a need for such a methodology and approach in the UK;
- to highlight the factors that affect the successful implementation, or otherwise, of TLTRs; and
- to create UK-focused guidelines for the introduction of TLTRs.

1.1.2 Investigation Objectives

In presenting a possible 'business case' for TLTRs, the following objectives were also investigated:

- to assess whether TLTRs are more successful in particular types of institution and the reasons for discrepancies, should any prove to exist;
- to analyse the main and planned uses of TLTRs;
- to distinguish between 'TLTRs as a structured methodology' and 'TLTRs as an intuitive approach' and the possible ramifications for the trial institutions;

- to create a broader picture of institutions' experiences of collaborative change *vis-à-vis* integrating technology with teaching and learning;
- to highlight some areas for possible further academic research.

1.2 Project Design

The research and evaluation work undertaken by the project team was mainly qualitative, but it is supported in appropriate areas by quantitative data. Chapter Three provides a comprehensive review of the research methodology.

1.3 Report Overview

The report comprises seven further chapters. The following chapter is a 'scoping' chapter, providing an overview of change, the management of change, the TLT Group and TLTRs. Chapter Three provides a comprehensive review of the research methodology: the aims, uses, purposes, intentions and plans within the practical constraints of location, time, money and availability of interviewees. Chapter Four provides details of a baseline study and examines UK experiences of 'quasi-roundtables'. The focus then shifts to TLTRs. Chapter Five recounts international experiences of TLTRs. Chapter Six provides an overview of the UK case studies. Chapters Seven and Eight are conclusions and post script respectively.

Chapter Two: Teaching, Learning and Technology Roundtables

The integration of information technology into teaching and learning is inevitable and well under way, but it will not be sudden. Although we cannot predict all the changes, we can still influence them. That is our responsibility and challenge.

(Steve Gilbert, President The TLT Group, 1995b: 7)

Teaching, Learning and Technology Roundtables refocus key resources and relevant services with the common goal of improving education through more effective uses of information and communication technologies.

(The TLT Group, 2000)

2.0 Towards Teaching, Learning and Technology Roundtables

2.1 Understanding Change

... [T]he roaring current of change, a current so powerful today that it overturns institutions, shifts our values and shrivels our roots. Change is the process by which the future invades our lives.

(Toffler, 1971: 11)

Any organisation which ignores the concept of change does so at its own peril. One might suggest that the peril will come sooner rather than later.

(McCalman and Paton, 1992: 4)

Change is uneven (Toffler, 1971), it is continuous (D.K. Hurst, 1985), its pace is increasing (Handy, 1994), there are several causes and commentators advise that it needs to be addressed continuously (McCalman and Paton, 1992) and “endured” (P. Hurst, 1983: 55) because the “stakes of dealing with [it] are so high” (Beer and Nohira, 2000: 133). In David Wilson’s (1992) view the leitmotiv of current management theory is that of understanding, creating and coping with change because it generates stress and strain for both those who support it and for those who are either indifferent to, opposed to or fearful of it (*cf.* Carnall, 1999: 13).

Change is a seemingly familiar construct. As a noun it indicates “something that has happened” or “the instance of becoming different”². However, as Dillon (1997) has noted, in the management literature, there is insufficient distinction between ‘change’, in the sense of making something different, and ‘progress’, in the sense of doing so in a desired direction. With this observation in mind, this investigation is more concerned with change in its broadest sense, as a verb and, in particular, *how changes in practice might be attained more effectively in F/HEIs*.

In Lewin’s (1951) projection, the process of change ceases to be one when the state of affairs becomes “refrozen” and it is “normalised” or integrated into normal practice. Despite this theoretical prognosis, in reality it can be extremely difficult to establish when

² *Concise Oxford English Dictionary* (10th Edition, 1999)

a change has become fully integrated into or embedded in day-to-day thinking and practice (Clarke, 1994). While we may be able to point to ‘revolutionary’ changes many are in agreement that much change goes on all the time in a more incremental and “evolutionary” manner (P. Hurst, 1983: 55). As far as ICT in F/HEIs are concerned, this standpoint is supported by Green (2000), who argues against the notion of a “computer revolution” and “technology transformation” in the US, in favour of a more sober assessment of a “steady process of evolution and change” (p. 420).

Another feature of change is that Western culture holds great store in the idea of ‘moving forward’. Mulhall (1999) has observed that an increasing number of management texts and gurus enthuse over the adoption of strategies for planning and “leading an organisation to a better future” (p. 4). In this sense change ceases to become a morally neutral construct and embodies progress towards ‘a greater good.’ The sociologist Raymond Williams (1983) is in agreement,

It is usually taken for granted that to think about the future, as a way of changing the present, is a generous activity, by people who are not only seriously concerned but also, in those familiar adjectives, forward-looking, reforming, progressive. All the *good* ideas are on this side; all the *bad* or disappointing practice on the other.

(Williams, 1983: 243)

Thus in Western cultures those who fashion barriers to change are often perceived as holding up the ‘natural order of things’ and resistance to change becomes morally intolerable. This is demonstrated in texts that describe such individuals or groups as “laggards” (*cf.* Rogers, 1983³).

The literature on the management of change is crammed with many, and sometimes, conflicting, models of management. In recent times there has been a deep-seated fixation on delineating the steps through which successful change can occur, and Kanter (1983), Peters and Waterman (1982) and Thorne (1991) have proposed a selection of ‘successful’ processes as generalisable templates for ‘models of change’. However, these working models that form the framework and basis for practical action often conflict with explanatory models of change that describe the process of change in a more theoretical way (Burnes, 2000: 1; Egan, 1985). As Buchanan and Boddy (1992) remind us, managing change is extremely difficult, and sometimes impossible, to pull off because of its complexity (p. 1).

This brings us to the notion of managing change. In a very real sense it can be argued that there can be no such thing as ‘change management’ if, as is commonly held, the nature of change is “unknown and unquantifiable”. Without knowing the nature of the challenge that exists before us, Pugh (2000) proposes a mindset that encourages institutions to organise effectively when confronted by such forces. In his opinion, organisations must use their resources more effectively, and especially their staff. He advises,

³ Rogers (1983) uses the term “laggards” to describe a group that is highly resistant to change and who tend to adopt innovative ideas toward the end of an ‘adoption life cycle’. They contrast the “innovators”, or venturesome experimentalists, who tend to be willing to work with almost any new idea to see what it can offer.

It means creating organisations that encourage personal development, that place learning at the heart of their operations, that possess systems which enable people to share responsibilities and workloads, which can change priorities quickly, which still place the service to the user first and which work on trust and giving responsibility... Specifically, it means real teams, real changes in management styles and leadership, real structural change, decentralisation and new ways of looking at education and training.

(Pugh, 2000: 2)

Pugh's advice may stem from the realisation that about seventy per cent of all change initiatives fail (Beer and Nohira, 2000). Managers are repeatedly confronted by an "alphabet soup" (Beer and Nohira, 2000: 133; cf. Huczynski, 1996) of initiatives often resulting in a loss of focus which in turn exerts a heavy toll, both in human and economic terms (Beer and Nohira, 2000).

In summary, change is an ever-present dynamic and a continuous process of development that initiates reorganisation in response to perceived needs. Internal factors or external forces, involving individuals, groups, institutions or government, initiate a process of transformation leading to a repositioning of existing values, beliefs, practices and outcomes.

2.1.1 Approaches to Change

There are three predominant approaches to understanding and explaining change in organisations (Wilson, 1992: 7). They have been classified as:

- the *behavioural* approach, largely derived from interpersonal and social psychology;
- the *structural* approach, which is concerned with organisational design and with organisational-environmental linkages and functioning; and
- the *cultural* approach, which focuses on organisational climate, ideologies and prevailing beliefs or values (culture) (*ibid.*: 7).

The data in this report has been examined from one or more of the above perspectives.

2.1.2 Collaborative Change

According to Buchanan and Boddy (1992), the efficacy of participative management and collaboration is generally accepted and rarely questioned. They suggest that if senior management were to be canvassed for their opinions on the preconditions for effective change in organisations, the terms 'involvement', 'participation', 'ownership', 'communication', 'commitment' and 'trust' will invariably emerge (*ibid.*: 14). Such terms pervade many recent initiatives that focus on involving individuals and groups in the effective management of change. If we consider the case of Business Process Re-engineering (BPR), in the mid-1990s many critiques began to question the veracity of an idea that focused on the "processes", rather than the "people" (Whiting, 1994: 14). Champy (1995), one of the instigators of BPR, took heed of such criticism and subsequently revised his original work (Hammer and Champy, 1993), to include a heavier emphasis on human resources. Other prominent BPR specialists were also in agreement,

We learned the value of worker participation and commitment many years ago; they should not be abandoned in the pursuit of radical change.

(Davenport, 1993: 103)

Participation, collaboration and commitment were the cornerstones of change management initiatives. This applies to the 'quality of working life' movement of the 1960s and 1970s (Buchanan, 1979), to the 'quality circle' movement of the late 1970s and 1980s (Ishikawa, 1985), to the 'high involvement management' practices advocated by Lawler (1986), and to popular management texts that promulgate the use of 'self-managing teams' as the basic organisational building block (Peters, 1987). In general, such initiatives are employed for reasons of education and development, improving communication and the general organisational environment or culture and changing employee attitudes (*cf.* Department of Trade and Industry, 2000). It has been shown that they can provide a sense of 'belonging' (Baumeister and Leary, 1995), a feeling of autonomy or control over one's work (Oldham, 1996) and stimulate innovation (Bunce and West, 1995; West and Altink, 1996). An ever-present debate has been the *scale* of implementation on the one hand and the *scope* of participation on the other.

In relation to the integration of ICT into teaching and learning, Steve Gilbert, the President of the TLT Group (see Section 2.2.1, 'The TLT Group'), defines collaborative change as,

A path and a process enabling an institution to use technology to help reach its educational vision. Diverse constituencies communicate and work together to define and achieve new harmonies of curriculum, pedagogy and technology in support of an institution's educational mission. Hierarchical and consensus-based decision-making structures are linked together in a well-articulated effort to shape and respond to the accelerating pace of change -- especially to new ways in which applications of technology may be able to support teaching and learning. New technology applications and institutional structures support new collaborations among Academic Support Professionals (library, information technology, faculty development, and others).

(Gilbert, 2000f)

The following issues on collaborative change are worth noting and are addressed by this investigation. The first two points focus on the *value* of collaboration and the latter on the *difficulty* of collaboration (Huxham, 1996):

- although collaboration is not a panacea for tackling *all* organisational activities, there are scenarios and situations in which working in isolation is not sufficient to achieve an organisation's desired ends;
- collaboration stimulates a practical imperative of avoiding duplication of effort and of ensuring that the efforts of various individuals or groups are co-ordinated into a coherent and directed whole;
- in organisations that have a number of interest groups, finding a way to satisfy enough of the aims to allow collaboration to proceed is often fraught with difficulty: there can be real and not easily reconcilable differences in aims and objectives. Collaborators, at best, tend to spend unusual amounts of time in

reaching understandings and agreements and at worst become embroiled in misunderstanding and conflict; and

- collaboration is time and resource-consuming in terms of achieving mutual understanding, gaining goodwill and negotiating bases for action. Also, in relation to co-ordination, if individuals or groups are physically remote from each other, e.g. are based in different campuses, it is not possible to arrange spontaneous meetings. Therefore, everything has to be planned.

2.2 Driving Change in Further and Higher Education

The pace of economic and technological change has accelerated significantly in recent years. The rhetoric of the ‘knowledge economy’, ‘information age’, ‘digital economy’ (Hafner and Oblinger, 1998: 2), to name just a few terms, has imposed significant demands on, and opportunities for, further and higher education. As Haywood *et al.* (1999: 6) noted, the growth of ICT during the 1990s is best perceived not as a “linear narrative” but as a “complex tapestry” of interrelated internal and external pressures.

Among the consequences of these pressures, within the context of government priorities (regarding significantly widened access, diversity, employability, raising achievement and quality standards), increased competitiveness between institutions, heightened student (customer) expectations and declining levels of resource, is the desire to seek managerial tools and techniques for maintaining efficiency, effectiveness and economy (*cf.* Hafner and Oblinger, 1998: 6; Deem, 1998; Utley, 1998) and the requirement for suitable and appropriate ICT-assisted teaching and learning (*cf.* Enterprise Centre for Learning and Curriculum Innovation, 2000; Harry and Perraton, 1999; Higginson, 1996; Laurillard, 1993; 2000; MacFarlane, 1995: 52-53; Massey, 1997; National Committee of Inquiry Into Higher Education, 1997; Smith, 2002; Sutherland, 2002).

Such external changes can have a transformative capacity internally and, to complement this, academic institutions as complex social structures, “bear the burden of plasticity” (Bloomfield *et al.*, 1997: 2). In other words, institutions have to modify themselves to the imperatives of ICT and it has been predicated that this may incur further fundamental changes in terms of job responsibilities and organisational structures (Bates, 2000: xiii; Huczynski and Buchanan, 1991: 527; A. Wilson, 2000),

Information technology has opened new, fundamentally different options for teaching and learning. History demonstrates that fundamental technological change ultimately begets *significant* structural change, regardless of whether the affected participants choose to join or resist the movement.

(Hafner and Oblinger, 1998: 8)

Or in the words of Oblinger and Rush (1998), if an institution aspires to a technology-enabled environment, “connected management” (p. xvi) is equally as important as connected learning.

2.3 Teaching, Learning and Technology Roundtables

2.3.1 The TLT Group

The TLT Group began as the Technology Projects of the American Association for Higher Education (TPAAHE) in November 1994. It was formally recognised as The TLT Group

in January 1998. Affiliated to the American Association for Higher Education (AAHE), the Group describe themselves as a “non-profit making body” and that their mission is “to motivate and enable institutions and individuals to improve teaching and learning with technology” (The TLT Group, 2000). Their supplementary mission is to enable institutions and individuals to cope with continual change, positing that ICT has created the stimulus for accelerating change and increased confusion to those at the vanguard of teaching and learning with ICT⁴,

The flood of information that confronts us daily, hinders our best efforts to keep up with it.

(The TLT Group, 2000)

To counter this confusion institutions and individuals must be imbued with the foresight to “help direct and shape technology’s impact” (*ibid.*). The Group provide consultancy and facilitate an exchange of information among institutions. They have devised a series of programmes largely based on institutions’ experiences of grappling with technological change (see Section 2.2.4, ‘Trajectory and Coverage’). The cornerstone of the Group’s activities are two key initiatives:

- The Flashlight Program⁵
- Teaching, Learning and Technology Roundtables (TLTRs)

The Flashlight Program was conceived by Steve Ehrmann in Spring 1992. It comprises toolkits, guidelines, background information relating to evaluation and consultation for undertaking effective evaluation with education. One of the evaluation toolkits is the web-based Flashlight Online, developed by Washington State University, which enables an institution to create, administer and analyse surveys. Together with other toolkits, like the Current Student Inventory (CSI), Faculty Inventory (FI) and Cost Analysis Handbook, institutions are able to detect and evaluate the consequences of educational technologies (Ehrmann and Zuñiga, 1997),

Visibility is a problem... and a process of evaluation is always like using a small, dim flashlight to glimpse what sort of animal might lie in front of you in a huge dark cave!

(*ibid.*: ix)

It has been estimated that over 200 hundred institutions have subscribed to the Flashlight Program and an additional 150 institutions have site licences to use the CSI (The TLT Group, 2000).

The TLT Group (2000) also assert that reducing confusion is best done by assembling a network of leaders and institutions to collaborate and co-operate to make the process of change more effective and palatable. This prognosis forms the core of TLTRs which are discussed in greater detail in the remainder of this chapter.

⁴ Some commentators in the US have estimated that new media products enter the market on six to nine month cycles and agree with the assertion that many educational institutions are unable to keep pace with such turbulent and continual change (Oblinger *et al.*, 1998: 93).

⁵ This was known as the ‘Flashlight Project’ from 1992 to December 1998.

2.3.2 Definition

The TLT Group broadly define a TLTR as,

...a diverse group representing those who can and should work together to improve teaching and learning with information and communication technologies.

(The TLT Group, 2000)

The definition has been incorporated into many TLTR mission statements. For example, the mission of the Alexandria TLTR of the Northern Virginia Community College describes their TLTR as,

...a discovery group, comprised of members from every unit of the campus community, dedicated to facilitating the use of technology in the learning-teaching environment.

(Northern Virginia Community College, 2000)

2.3.3 TLTR Premise

Each institution has a number of decision-makers who can play a pivotal role in pushing technology plans forward or making them grind to a halt. Unless such people are brought into the technology planning process *in an effective way*, the process can be crippled.

(Huff, 2000: 637)

As described in Section 2.2.1 the TLTRs were formulated as a mechanism to reduce confusion by fostering collaboration and communication. As a technique, they sit with Boden's (1994) assertion that 'key action' in complex organisations is best accomplished through 'talk', or Hafner and Oblinger's (1998) belief that successful institutional transformation is most effective if cross-departmental and functional bodies are set up that allow individuals to develop beliefs and behaviours to meet the requirements of the new system (p. 9-10).

TLTRs are a purported marriage of ICT planning and organisational change, aligned to address the "unique communication needs in [further and] higher education institutions" (Nardick, 2000: 2). These have been summarised as:

- a need for ICT planning efforts to become more decentralised within the organisation;
- a desire to include as many stakeholders responsible for and affected by the use of ICT to improve teaching and learning (*ibid.*: 2); and
- a willingness to effect a catalyst for campus-wide educational change (The TLT Group, 1998).

In developing TLTRs, The TLT Group observed that whilst many colleges and universities had at least one committee or task group that wrestled through a technology planning process, the efforts lacked "a coherent conceptual framework" or "focus(ed) too narrowly on the technology rather than teaching and learning issues" and tended to be exclusive by

involving “only those closest to the technology” (The TLT Group, 1998: 277)⁶. Or, as noted by Eastern New Mexico University (1999), “technology for technology’s sake” should never “supplant the primary focus of education.”⁷

TLTRs were developed specifically to bring the technologists closer to the debate of integrating technology with teaching and learning⁸, particularly when, in the mid-1990s, it had been prophesied that such employees were moving to “the centre of organisational life” (Knights and Murray, 1994: xiv) and could no longer be ignored. In short, TLTRs help institutions adopt and adapt to an environment of constant change and new competitive challenges.

A further premise of TLTRs can be gleaned from Steve Ehrmann’s, the Vice-President of The TLT Group, critique of the ‘campus-bound’ institution. In this paper Ehrmann (1996) determined that there is a ‘triple challenge’ facing such institutions and argued that they need to:

- increase *accessibility* so that higher education is available to the “full range of adults who deserve a chance at education, despite their location, schedules, cultural differences or physical disabilities;”
- ensure the *quality* of “learning for the twenty-first century” in order “to improve the life chances of each of their adult learners, as individuals and as members of economic, cultural and political communities;” and
- to do so in *cost-effective* ways “in the face of slow economic growth and other social needs.”

Ehrmann concludes that the ‘triple challenge’ can be best addressed by recognising the value and potential of ICT. Steve Gilbert (1997), the President of The TLT Group, echoes the aforementioned points in his view on the purpose of a TLTR, which he dubs “a useable vision of the future”,

[TLTRs] improve the *quality* and *accessibility* of higher education through the selective use of information technology and information resources in teaching and learning, while *controlling costs*.

(comments cited in Boudreaux, ND – emphasis added)

⁶ This judgment is reflected in the supporting literature of a TLTR regional workshop, hosted by the University of Nebraska-Lincoln and Nebraska Wesleyan University which notes (University of Nebraska-Lincoln, ND),

...at most colleges, various committees and departments have overlapping responsibilities for the policies, practices and planning for educational uses of technology... [and] the groups are unaware of each other’s work, and concentrate too narrowly on hardware and software rather than on teaching and learning...

⁷ An interesting perspective is put forward by Noblitt (1998: 151-152). Noblitt bemoans the lack of dialogue between ‘the top-down folks’ (administrators), who “seem to want to spend all available funds on infrastructure” without explaining to faculty why ICT is needed, and ‘the bottom-up people’ (faculty), who are concerned with “scholarly problems that need technological support for their solutions.” Arguing from the bottom-up perspective, Noblitt decries those that focus on technology *per se* and who try to position it at the heart of the academic enterprise.

⁸ From personal communication with Steve Ehrmann (September 2001)

2.3.4 TLTR Composition

As noted above, the composition of the TLTRs should be “diverse” and representing those who can and should work together to improve teaching and learning” (The TLT Group, 2000). This has been further qualified by the assertion that the TLTR should be “a broad enough collection of *influential* people” (*F-LIGHT*, 2001). According to Gilbert and Ehrmann (2001: 9-10) for a TLTR to function effectively it should be composed of the following groups and individuals:

- **Academics** (Faculty) – It is necessary that a TLTR include both those who have already begun to use ICT in their teaching *and* those who have not. On the latter group Ehrmann (ND) is keen to point out that members should not necessarily be “techno-zealots” (*cf.* The TLT Group, NDb: Rio Salado College). This ensures that the full range of academic perspectives is represented. In a slight modification of this vision, the University of Nebraska-Lincoln’s (ND) ‘TLTR Membership Bylaw’ stated aim is to bring on board “those most interested” in applying ICT for teaching and learning. Gilbert and Ehrmann (2001) also recommended that the TLTR has as wide a constituency as is possible and practical. This may include leaders, “tenured and untenured faculty” and full and part-time personnel. In support of this, as demonstrated by the University of Nebraska-Lincoln’s (ND) TLTR, it is stated that its “membership cut across faculty and staff seniority levels represent[ing] a cross-section of academic disciplines.”
- **Support Staff** – This includes support services such as the learning centre (library), ICT and audio-visual services, facilities and other key administrative and support departments.
- **Senior Management** – In Gilbert and Ehrmann’s (2001) view “a Chief Academic Officer or comparable central administrative leader needs to be involved and strongly supportive” (p. 9). They need to act as ambassadors, constantly communicating the work and importance of the TLTR to the remainder of the institution.
- **Students** – Gilbert and Ehrmann (*ibid.*) maintain that “well-managed student participation tends to add credibility and energy” (p. 10) to TLTRs. In the web sites that were analysed and monitored during this investigation, it appears that student representation is either nugatory or not explicit. TLTRs are not necessarily catalysts to student participation. In a case study of the Anna Maria College it is documented that its TLTR included students “representing undergraduate, graduate, commuter, resident, part-time and full-time [sections]” and that these participants were involved *before* TLTRs were formally set up (TLT Group, NDa). In the minutes⁹ of the Central Virginia Community College (1999), it is recorded that there were moves to eventually have student representatives appointed.

In other institutions, such as Carleton University (1998), the TLTR must also have an individual or organisation that is “responsible for interacting with outside organisations and other campuses for information.”

⁹ Dated 24 September 1998.

Whoever is involved, it is stressed that the TLTR must work collectively for campus-wide acceptance. No single group must dominate and, as advised by Eastern New Mexico University (1999),

...it is important to avoid faculty perceptions that [the TLTR] is an approach imposed by the administration, a movement by a special interest group of faculty or an attempt by computer services to cover its flanks.

2.3.5 TLTR Workbook

A TLTR engages academics, administration, support services and students in *activities* designed to enhance teaching and learning through the use of ICT. Such activities have been enshrined in a 'workbook' which attempts to support the co-ordination and amalgamate the views of the individuals and groups in the previous section. It is critically analysed and discussed in this report.

2.3.6 TLTR Lifespan

The issue of adopting and adapting to ICT is an ongoing process. A long-term commitment is required from senior management and the lifespan of a TLTR should be "several years" (Carleton University, 1998).

2.3.7 Trajectory and Coverage

Since the TPAAHE's first meeting to launch the TLTR programme in Washington, DC in November 1994, it is claimed that over 400 TLTRs have been established. A majority of these have been established in the United States, a few in Canada and at least one TLTR in Australia. The TLT Group website is replete with statistics and milestones that suggest an upward trajectory *vis-à-vis* interest in their activities, including involvement with TLTRs (The TLT Group, 2000):

- first TLTR workshop in March 1995, with 250 registrants;
- first TLTR Summer Institute in 1995 with 275 registrants (the seventh Summer Institute took place in 2001);
- first TLT Group Leadership Event in February 1999 with over 80 registrants;
- over fifty workshops organised, covering 10,000 people, with over thirty in 1999 alone. This compares to ten workshops which were organised in 1998;
- over 300 campuses served;
- over 100 TLTR workshop leaders;
- over 5,900 subscribers to the TLT Group moderated listserv AAHESGIT;
- over 1200 subscribers to *F-LIGHT*, The TLT Group's newsletter on the study of educational uses of ICT; and
- sixty institutional subscribers to the TLT/Collaborative Change Network.

2.4 Reasons for Involvement in TLTRs

There are many reasons why institutions have chosen to become involved with TLTRs,

- **to use ICT strategically** and meet any mandated technology initiatives (Danville Community College, ND), “to develop a vision for the use of information technology” (Red River College, 1999), and “a vision worth working for” (University of North Carolina at Greensboro, ND), or provide a strategic direction to a particular (distance learning) programme, as realised at Rio Salado College (The TLT Group, NDb). Planning to many of the institutions is something of a learning process (see below) and is reminiscent of De Guesse’s (1988) observations at Shell wherein planning means ‘changing minds’ and not just ‘making plans.’
- **to develop realistic goals** and maintain a more solid focus on teaching and learning (Carleton University, 1998);
- **to adapt to the current of change.** The Virginia Community College System (ND) states, “[TLTRs] could be the organisational mechanism which supplies an essential component for change...” Meanwhile, Texas Wesleyan University hope “to develop a positive increase” in academics’ attitudes toward ICT (Gilmore, ND),
- **to use the available ICT in a cost-effective way** (Red River College, 1999), make recommendations regarding budget and operational priorities for the acquisition and use of ICT (Danville Community College, ND; Red River College, 1999) and investigate the effects of ICT in terms of cost benefit ratios and return of investment (University of Nebraska-Lincoln, 2000). It is suggested that, with a collective knowledge base, TLTRs are able to prioritise issues and provide feasible solutions with reference to resource implications;
- **to facilitate training, development, awareness and understanding of ICT** among students, administrative and academic staff (Carleton University, 1998; Danville Community College, ND; Red River College, 1999; The TLT Group, NDb);
- **to address a perceived “support crisis”**¹⁰ (University of North Carolina at Greensboro, ND);
- **to enhance the kudos and standing of the institution.** In the US, institutional ability to compete for students and grants is dependent, to some degree, on the apparent level of educational use of ICT (Gilbert, 2000c);
- **to improve the learning and teaching experience**, particularly when: a growing number of courses include topics from fields in which applications of ICT have become an essential component; a growing number of disadvantaged (e.g. part-time, disabled, homebound) students are demanding higher education; employees demand a high level of computer literacy of higher education graduates (Ehrmann, ND; Gilbert, 2000c). The Eastern New Mexico University (1997) posit that it is their responsibility to expose students to technology-relevant experiences “even within the framework of a liberal arts education.” Their web site also has the

¹⁰ Although the document posted on the web site does not identify the “crisis”.

reminder that “technology for technology’s sake has little value or merit and should never supplant the primary focus of education.” It is also worth considering McInnis’s (1995) standpoint, “...the use of technology in delivering mass higher education is appealing... but little thought has been given to the social nature of learning in the university, or indeed the relationship between knowledge and the university;”

- **to reflect and keep up with ‘the post-modern condition’ and general sense of discontinuity** (Smith and Webster, 1997), or as adumbrated by the Eastern New Mexico University (1997) “the distinction between educational environments is blurring to the extent that the concept of a virtual campus will rapidly be a reality;”
- **to develop a solid communication and learning structure**, disseminate information (University of Northern Carolina at Greensboro, ND), engage in discussion “across functional boundaries” (Virginia Community College System, ND) or ensure a “candid” exchange of information (Carleton University, 1998). In the process, it is envisaged that a ‘learning organisation’ is created, in which expertise and knowledge are shared throughout the institution (Red River College, 1999, The TLT Group, NDb). The publication and interest in Senge’s (1994) *The Fifth Discipline*, which promotes the learning organisation, coincides with many institutions’ plans to set up TLTRs (*circa* 1994/95). In the case of the Rio Salado College, which operates on the premise that ICT should be an “enabler” and not a “driver” in teaching and learning, it is mentioned that the TLTR members all had training on the ‘five disciplines’¹¹ (The TLT Group, NDb);
- **to develop policies** and co-ordinate projects related to the use of ICT in teaching and learning (Red River College, 1999), or in the case of the Rio Salado College, to develop guidelines for the delivery of distance courses and plan for future distance learning initiatives (The TLT Group, NDb);

¹¹ To recap, Senge (1994) identified five disciplines which are needed to create a learning organisation:

1. *Personal Mastery* - whereby an environment is created that helps individuals to develop themselves continuously towards their own personal goals;
2. *Mental Models* - a reflection on and improving upon ‘personal pictures’ of the world and understanding how these pictures shape actions and decisions;
3. *Shared Vision* - the building of a group commitment through a shared image of the desired future and how to achieve it;
4. *Team Learning* - the transfer of learning skills so that groups can develop their abilities further than they could on their own; and
5. *Systems thinking* - the understanding and expressing of the interrelationships within systems and unites the above disciplines.

¹¹ See also Tann’s (1995) analysis of the learning organisation in UK higher education institutions. She asserts that the hallmark of organisational learning is one which “involves mutual behaviour exchange, when a change in behaviour of one individual has an effect on the behaviour of others there is mutual learning” (p. 48).

- **to facilitate collaborative research** on the exchange of ICT in teaching and learning (Red River College, 1999);
- **to network and liaise with other TLTRs** (Red River College, 1999). The TLTR Group are keen to facilitate an exchange of information between institutions (*c.f.* the TLTR/Collaborative Change Network). They hold great store in allowing institutions share the lessons they have learned in order to pass the benefits of their experiences to others (The TLTR Group, 2000).

2.5 Beyond TLTRs?

At the time of this investigation TLTRs were six years old. Huczynski (1996) has observed that management fads and ideas rarely last a few years. They need to be re-packaged, repositioned, tweaked or customised (*ibid.*) to maintain interest. The TLTR Group have put forward a modification or addendum to TLTRs. Local [Virtual] Teaching, Learning and Technology Centers ([V]TLTRCs) are deemed to remain “true to the collaborative, participatory principles of the TLTRs” (Gilbert, 2001a). It has been envisaged that they are,

An online supplement (website) for a *single institution's* TLTR... serving as a mechanism to extend the accessibility of and co-ordinate faculty and student support services.

(Gilbert, 2000f)

In other words, the (V)TLTRCs appear to be similar to a number of units already established in a number of UK HEIs, in particular, those that are dedicated to providing teaching and learning resources. There were signs that a number of institutions with TLTRs were beginning to develop a “TLTRC structure” (Central Virginia Community College, 1999) and establish a meeting centre “where technology demonstrations could be staged to show new hardware and software” (*ibid.*).

2.6 Summary

Huczynski (1996) has argued that if management ideas are to achieve popularity they must meet five basic prerequisites:

- to be timely or address themselves to the problems of the age;
- to be brought to the attention of their potential audience through good promotion and marketing;
- to address organisational requirements in a manner that meets the individual needs and concerns of the managers at whom it is addressed;
- to possess the essential ingredients that allow potential users to perceive them as relevant to their needs; and
- to be verbally presentable in an engaging way.

TLTRs were developed at a propitious time, in the mid-1990s, as heavy investment in ICT hardware and software was being made. For instance, Eastern New Mexico University (1999) state that the 1994/95 academic year witnessed an exponential growth in the

investment made in ICT in the form of campus-wide e-mail accounts, computer laboratories and extra computer hardware and software. Perhaps more indicative are the US *Campus Computing* surveys, about faculty use of ICT in support of teaching and learning, conducted by Green during the period 1994 to 1995 (Green, 1994; 1995; 1996). The surveys reveal an across-the-board growth in: computer-based classrooms and laboratories, computer-based simulations or exercises, presentation handouts, CD-ROM-based materials, electronic mail, commercial courseware, multimedia, internet resources from off-campus sources and web pages for class materials and resources. Referring back to Huczynski's (1996) template, we should not discount the ways in which TLTRs are vigorously promoted and marketed at a sectoral level. Perhaps the realisation that it is an initiative that developed "in education, for education" heightens its receptivity. TLTRs appear seductively simple and apparently easily attainable and, given the general efficacy of collaboration in organisations, are verbally presentable. The 're-invigoration' towards (V)TLTCs is also symptomatic of the development of management ideas which, as Huczynski reminds us, have a very limited shelf life.

Chapter Three: Methodology

Behind every method lies a belief. Researchers must have a theory of reality and how that reality might surrender itself to their knowledge-seeking efforts. (Zuboff, 1988: 423)

3.0 Introduction

This chapter provides an overview of the research design, the methods of data collection and the reasons for their deployment.

3.1 Summary of the Research Process

The methods used in this investigation included:

- Ongoing literature review;
- Structured observation in three trial institutions;
- Face-to-face interviews in three trial institutions;
- Informal visits to other institutions;
- A baseline survey of UK experiences of ‘roundtables’;
- Telephone interviews following up the baseline survey;
- Face-to-face interviews with individual members of US TLTRs;
- Two focus groups with members of US TLTRs; and
- Telephone interviews with members of US and Canadian TLTRs.

3.2 Research Design

Appropriate selection of methods was a key issue at the outset of this investigation. The research design was determined by a number of ‘technical’ factors such as, the time constraints, the funding at the team’s disposal and type of access to the institution, group or individual. In addition to these ‘technical issues’ the design was also determined by deeper ‘epistemological issues’ (Bryman, 1988a). The investigators felt that a more interpretive study was required, which privileged the search for meaning and addressed the ‘how’ and ‘why’ questions.

Approaches like case study analysis (Yin, 1994) were deemed suitable because they involve empirical enquiry that investigates a phenomenon in its real life context (Rose, 1991). One of the key questions in this investigation is: ‘how does institutional culture (i.e. the collective values, beliefs and norms) affect the implementation of TLTRs?’ Case studies are formed by collecting data which represents an interpretation of the research subjects’ experiences, opinions and attitudes (McCormack Steinmetz, 1991). However, although the study is mainly qualitative in nature, quantification was employed where

appropriate. In short, the team were subscribing to Morgan's (1983) observations on the purpose of research which,

... is to analyse research strategies in a way that moves 'beyond method' so that we can consider the logic of engagement that link researcher and researched... rather than on the labels used to denote similarities and differences among them (p. 41).

3.3 Code of Practice

Research designs and procedures which fail to meet ethical standards and to treat subjects with respect are likely to result in misleading, inconclusive and biased results.

(Taylor, 1994: 523)

The study conformed to a strict code of practice. It was hoped that such a code would provoke a strong response rate to questionnaires, instil confidence and elicit a frank and open discussion of participation in TLTRs (or similar bodies) by allaying any fears or doubts (*cf.* Harris, 1992). This study benefited from the insights of the British Psychological Society (1998), which recommends researchers to address the following areas:

- Investigations should normally be carried out only with the valid consent of participants;
- The participants should understand the nature of the investigation and its anticipated consequences. Potential focus group members and interviewees were informed of who the funders were, the nature of the involvement of the interviewers and interviewee/focus group members, the anticipated number of participants, the time it would take to complete the interview/focus group and the role of the tape recorder as an aid to the data collection;
- Reasonable steps must be taken to ensure the confidentiality and anonymity of organisations; and
- Reasonable steps must be taken to ensure the confidentiality of any individuals. This and the previous point reflect the growing concern for privacy of individuals (Wacks, 1980). As Bryman (1988b) has observed, researchers of organisations may be met with scepticism and suspicion, especially if they need to negotiate access via senior management. Participants were informed that their comments would not be disclosed to anyone, particularly senior management. In this report, their comments have been recorded in a manner that does not permit identification of interviewees.

In addition, as recommended by Banister *et al.* (1994), the team were available to prospective interviewees/focus group members, to provide them with the opportunity to query and comment on any aspect of the investigation.

3.4 Literature Review

As Hakim (1987) has noted, the literature review is vital preparatory work in providing a synthesis of existing knowledge and allowing researchers to develop their theoretical

frameworks (Hannabus, 1995: 3). According to Kellehear (1993), the task of the literature review is to create a 'sense of place' (p. 13). He asserts,

The literature review for inductive research designs, is not only an evaluation of past literature, it is also the background to the culture studies, with imperfections of the literature noted and discussed (p. 21).

Chapter Two has provided the general 'sense of place' and has, for example, listed the reasons why institutions choose to become involved in TLTRs. The main body of the report will synthesise and integrate further insights from the management and education literature. The key problems, in relation to a literature review that focuses specifically on TLTRs are,

- The TLT Group claim that over 400 TLTRs are in existence. However not all of these bodies are directly referred to as 'TLTRs' by their institutions (TLT Group, 2001). This posed a problem when the team were searching for 'TLTRs' on the web;
- TLTRs appear to be too superficial to be worthy of academic scrutiny and debate and very little literature exists in the academic literature. At the time of this investigation, the team were only aware of one PhD thesis on the subject (Nardick, 2000). To further support the lack of academic engagement with TLTRs, the team put forward a number of abstracts to conferences in North America and elsewhere using the TLTR acronym. We were met with much more enthusiasm when the same, or similar, abstracts were put forward *without* the acronym.
- Virtually all of the TLTR literature is on the web. Much of this is in the form of 'grey literature' on institutions' web pages and this type of literature may include minutes of meetings and mission statements of TLTRs. The quality is extremely variable. By employing the web, most institutions will release only materials that are not of a sensitive or discordant nature. Therefore, there is a very superficial picture of levels of participation and engagement. We also do not have a picture of the difficulties of TLTR implementation.
- There are problems in relation to chronology and timescale. A number of the web pages have not been updated. Many are dated *circa* 1998, suggesting that TLTRs cease to be prominent after this time. Many pages are undated.
- There are some experiences of involvement with TLTRs on The TLT Group website. There is therefore a problem of impartiality in some of these data.

3.5 Phoenix 2000

In summer 2000, a delegation from Sheffield Hallam University and other representatives from the trial institutions attended The TLT Group Summer Institute. Three key sessions were attended: Guest Facilitator and Team Leader Training, TLTR Beginners Track and Team Time.

3.5.1 Guest Facilitator and Team Leader Training

This session enabled the delegation leader to learn about the process of leading 'roundtable teams' at a TLT Group event. From these insights, the delegation leader was able to

facilitate a process that enabled the representatives of the three trial institutions to provide constant feedback on TLTRs during the event.

3.5.2 TLTR Beginners Track

The beginners track was designed to introduce delegates to The TLT Group's goals, mission and activities. Steve Gilbert gave a brief presentation on TLTRs and introduced 'The TLTR Workbook'. The workbook consists of tasks that enable individuals and groups to set up TLTRs within their institution. This session enabled the delegation to meet key members in The TLT Group and other individuals who had established TLTRs within their institution.

3.5.3 Team Time

Team time was a pivotal part of the trip. The delegation used the opportunity to understand how the TLTR concept could fit into the UK F/HE sectors. The session was used to reread the workbook and mark passages to change into an 'anglicised' version. A member of The TLT Group was on hand to provide guidance and clarify a number of points.

3.5.4 Conclusion

The Phoenix Summer Institute enabled the team to understand TLTRs. Crucially, it allowed the research team to build on the relationships that had been forged during the Summer Institute when another delegation were sent to the Santa Clara Conference (see below).

3.6 The Trial Institutions

The TLTRs were trialed at two diverse institutions: a further education college (Institution A) and a traditional research-led university (Institution C). A post-1992 university (Institution B) with a structure that closely resembled a TLTR was also examined. The purpose of this investigation was to examine the applicability and usefulness of TLTRs in the UK and determine whether there are differences of experience in their employment.

3.7 Interviews

The interviews were pivotal in this investigation. Two types of interview were carried out: face-to-face and by telephone. The face-to-face interviews were held at all three trial institutions with senior management, administrators, academic and staff from support services. They were also held with members of TLTRs in the US, when members of the team attended the *Syllabus Conference* in Santa Clara, California in July 2001. In order to elicit and ascribe meaning to the data that was gathered the interview schedule was drawn up with reference to two separate models of organisational analysis, the four tier model of policy development proposed by Levin (2001) and the work of Dimmock and Walker (2000).

Though there were specific reasons for choosing these particular models, the underlying rationale was to provide a critical lens with which to elicit and ascribe meaning rather than to try and define the organisation, for as Hofstede (1994: 40) notes "these are also constructs that should not be reified. They do not exist, they are tools for analysis that may or may not clarify a situation".

The work by Levin was originally developed for the analysis of macro level policy however it was seen as appropriate as it also gives a rigorous academic analysis to institutional policy from conception through to delivery in complex organisational environments. The Dimmock and Walker model was integrated as a major consideration of the project was whether, and to what extent, a North American approach to change management be used in a UK context.

The advantages of interviews are numerous. By employing the method the investigator has the ability to:

- Determine the *real* meaning of responses;
- Correct and have contradictions explained;
- Correct misinterpretations;
- Probe in-depth;
- Observe participants' reactions to questions; and
- Allow for the identification of individual differences in question interpretation as well as specific meaning of answers (Douglas, 1985, *cf.* Busha and Harter, 1980: 78)

The interviews were semi-structured and based on an interview schedule. The proper framing, pacing and management of the interview questions enabled the team to maximise the chances of maintaining objectivity and achieving valid and reliable results (*cf.* Breakwell, 1995; Lofland and Lofland, 1983). The interview schedule was informed by the following recommendations and insights:

- The questions were neutral, rather than value-laden or leading;
- The interview schedule avoided jargon, esoteric terminology and ambiguity. J.A. Smith (1995) advises researchers to construct a schedule that is thoughtful of the interviewees' mode of language and also states that the questions must be framed in a way they feel familiar and comfortable with (p. 13);
- The interview schedule avoided 'closed questions.' J.A. Smith (1995) notes that such questions negate the interviewee from opening up about his or her thoughts and feelings.

In view of the teams' theoretical interests, outlined in 'The Research Design', reflective questions were pervasive such as: 'how did *x* affect you?', 'how did you see yourself then?', 'tell me how you feel about *x*?', 'how did you feel when *x* happened?' or 'what does *x* mean to you?'

As far as probing was concerned, the probes recommended by Schatzman and Strauss (1973) offer a useful guide to researchers, which was employed in this investigation (p. 74):

- **Chronology** ('... and then?' 'When was that?');
- **Detail** ('Tell me more about that');
- **Clarification** ('I don't quite understand...' 'Why do you say that?');
- **Explanation** ('Why?' 'How come?')

Interviewees were informed that there were no "wrong or right" answers. This observes Schatzman and Strauss's (1973) recommendations that,

... there is no more important tactic... than to communicate the idea that the informant's views are acceptable and important (p. 73),

and Wuest's (1995) advice that it is important that the researcher not impose his or her notion of what is right or significant.

Finally, the probe 'Do you have anything to add?' was included at the end of each interview. It is recommended by Kumar (1992: 182) for it picks up on relevant subjects neglected by the investigator and of importance to the interviewee or focus group member (see Section 3.8, 'Focus Groups').

3.8 Focus Groups

Two focus groups were held during the *Syllabus Conference* (see above). The members of these groups were members of TLTRs in the US. Two moderators were employed to ask the questions and record the data because this is a much more complex process than interviewing. It was hoped that the individual members of the group would engage in a discussion with the moderators *and* with each other.

3.9 Structured Observations

Observations were held at all three trial institutions. As non-participant observers the investigators eschewed being members of the TLTRs. Wilson and Streatfield (1981) and Douglas (1985) have built a strong case for the employment of this method, especially in organisational research. Observation privileged the investigators with the ability to trace and record the complex political strategies and conflicts which accompany the management of change.

3.10 The Baseline Survey

A web-based baseline survey was administered. It was sent out to enable the team to ascertain whether F/HEIs already had a 'round' or 'oval' table for making decisions about the use of technology for teaching and learning purposes. It was predicated on the belief that receptivity to the TLTR methodology or approach may be affected if there is a feeling that they already exist.

To ensure a high response rate the team employed a code of practice which protected the confidentiality and anonymity of institutions, keeping the survey as concise as possible and providing the potential respondents with ample time to complete the survey. Details of the survey were also released with the team's article in the *Association of Learning Technology Newsletter (ALT-N)* (Carter and Mistry, 2001).

In addition to fostering an understanding pertaining to general issues of scale and chronology, it was hoped that the survey would also shed light on a number of operational issues, such as how often the body meets and who sits on the bodies. The other key aim of the baseline survey was to provide the investigators with contacts for follow-up telephone interviews.

The survey was released in April 2001 and respondents were given approximately three months to respond. A total of 86 replies were received from both F/HEIs.

3.11 Analysis of Data

Data analysis (is)... taking constructions gathered from the context and reconstructing them into meaningful worlds.

(Mead, 1934: 52)

There were two key components of the analysis, which can loosely be termed ‘preliminary’ and ‘formal’. The preliminary analysis was undertaken almost immediately during the observations or interview and is consistent with other experiences of analysis (*cf.* Charmaz, 1995). The team employed ‘reflective listening’ tactics (Gorman and Clayton, 1997: 130), or repeating back to the interviewee or focus group an understanding of what had been said. As recommended by Martin and Turner (1986), interview and focus group recordings were transcribed immediately after the interviews had taken place to provide an accurate representation of the data. The preliminary analysis provided the team with key issues and themes and attempted to capture the essence of what had been found. After each interview and focus group, comments were made to:

- Summarise the key issues; and
- Make associations and connections with other data or were preliminary interpretations.

The formal analytic phase of the process consisted of coding the data (Strauss and Corbin, 1990), or defining what the data were all about (Charmaz, 1995: 37). In contrast to quantification, which applies preconceived codes, codes were created and led directly to the development of theoretical categories, such as those described by Strauss and Corbin (1990). A framework endorsed by Charmaz (1995: 38) was employed to make sense of the transcripts:

- What is going on?
- What are people doing?
- What is the person saying?
- What do these actions and statements take for granted?
- How do structure and context serve to support, maintain, impede or change these actions and statements?

As the interviews progressed major issues and themes emerged. The team were able to study the multiple interviewees’ accounts, observations and behaviour of the same, or

similar, situations. It was then possible to detect inter-relationships, similarities between themes, and differences, thus illuminating the question at hand. Patterns developed quickly during the early stages of the investigation, but became less apparent during the latter stages when a process of 'saturation' had been reached (*cf.* Strauss and Corbin, 1990).

3.12 Reporting of Results

With the exception of the baseline survey, rather than keeping the data gathered by the various methods separate, all the information have been integrated and synthesised along with the literature on the subject. Thus, a rich picture of the extent and nature of TLTR engagement emerges as information from a variety of sources is combined to inform the discussion.

3.13 Conclusion

This investigation is an exploratory study of TLTRs in the UK. It describes the differing experiences and attitudes, if any, among UK institutions that appear to have a roundtable structure as well as other international experiences of TLTRs.

The employment of a qualitative approach facilitated an open, flexible style and enabled the team to analyse the perspectives of the respondents in order to elicit the social meaning of their actions. The informality of the interviews allowed the participants to raise issues of importance to them.

Chapter Four: ‘Roundtables’ in the United Kingdom

4.0 Introduction

A ‘ground clearing’ exercise was conducted to determine whether further and higher education institutions already had a roundtable or an institutional initiative that mapped onto the roundtable concept for making decisions about the use of technology in teaching and learning. The survey which was sent out in April 2001, via a link from the School of Computing and Management Science’s web page at SHU, was designed to elicit only general information and was brief to ensure a high response rate. The questions were mainly ‘closed’, but respondents were given the option to add any further comments if they so desired. The general information related to timescale, the diversity of the membership, the frequency of the committee meetings and its primary motive.

The team’s secondary concern was to establish links with key actors within these institutions, in the hope that they would be willing to participate in a more detailed telephone interview.

4.1 Survey Results

4.1.1 Response Rate

There was a very good response to the questionnaire. A total of 82 responses were received. The data presented in the remainder of this chapter excludes the questionnaires received from the nine international institutions.

	n	%
Total no. of responses	82	-
Total no. of further education institutions	26	31.71
Total no. of higher education institutions	47	57.32
International institutions	9	10.98

4.1.2 Institutional Committees

The results indicate that a majority of F/HEIs that answered have an institutional committee that makes decisions about the use of technology in teaching and learning. 22 out of the 26 (84.62%) FEIs had such a committee (Fig. 4.1), compared with 36 of the 47 HEIs (76.6%) (Fig. 4.2):

Fig. 4.1: FEIs with 'Roundtables'

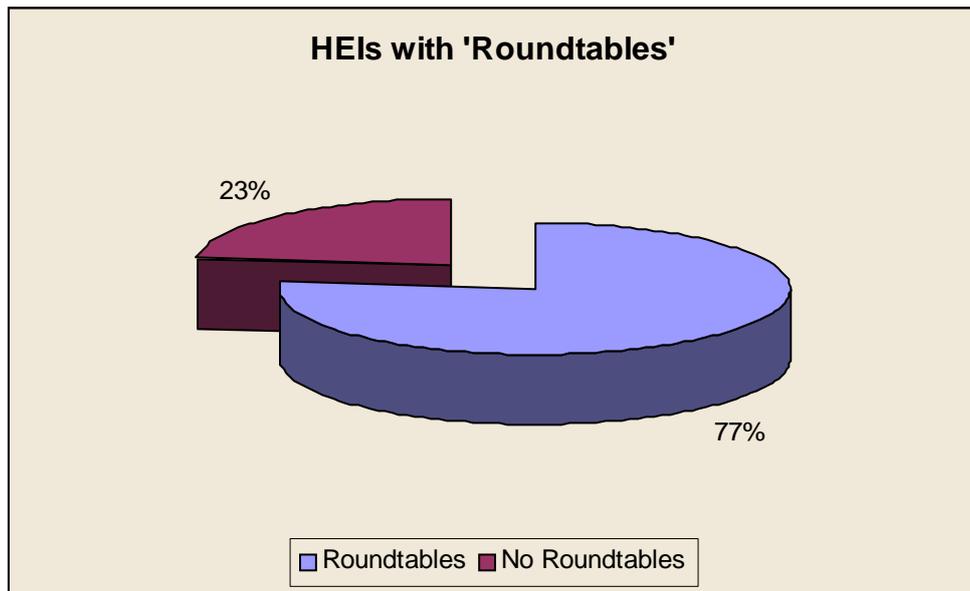


Fig. 4.2: HEIs with 'Roundtables'

4.1.3 Timescale

Respondents were asked to indicate when their 'roundtables' were set up. From our data roughly two-thirds of the roundtables in *both* the further and higher education sector had been set up in the previous two years (i.e. from 1999).

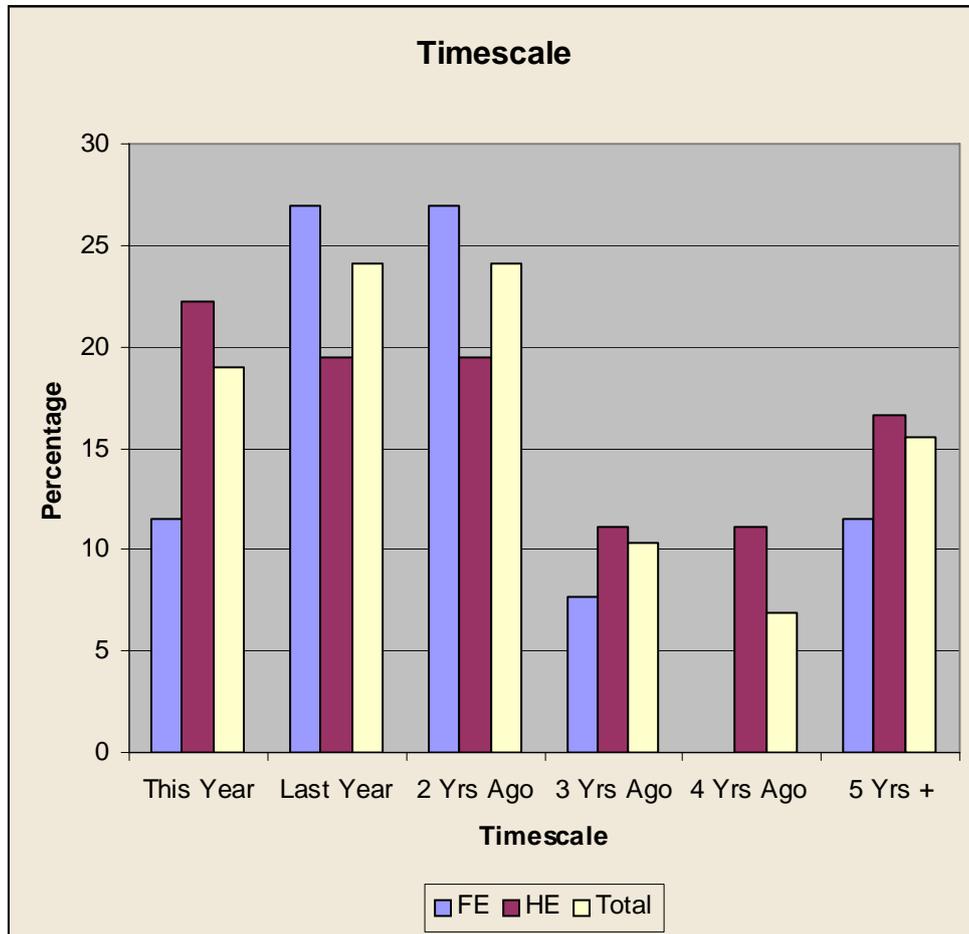


Fig. 4.3: Timescale of 'Roundtable' formation

Telephone interviews confirmed that the recently established structures had been set up as a direct result of “[needing to] choose an appropriate VLE.” While collaborative, or collegial, structures had been in place for some time at some institutions, particularly in HEIs, in general there appeared to be a more concerted and focused attempt to develop mechanisms for debate and information sharing in relation to ICT and teaching and learning within the last two years.

4.1.4 Frequency

Most of the roundtables, in both sectors, met on a bi-monthly or 'termly' basis.

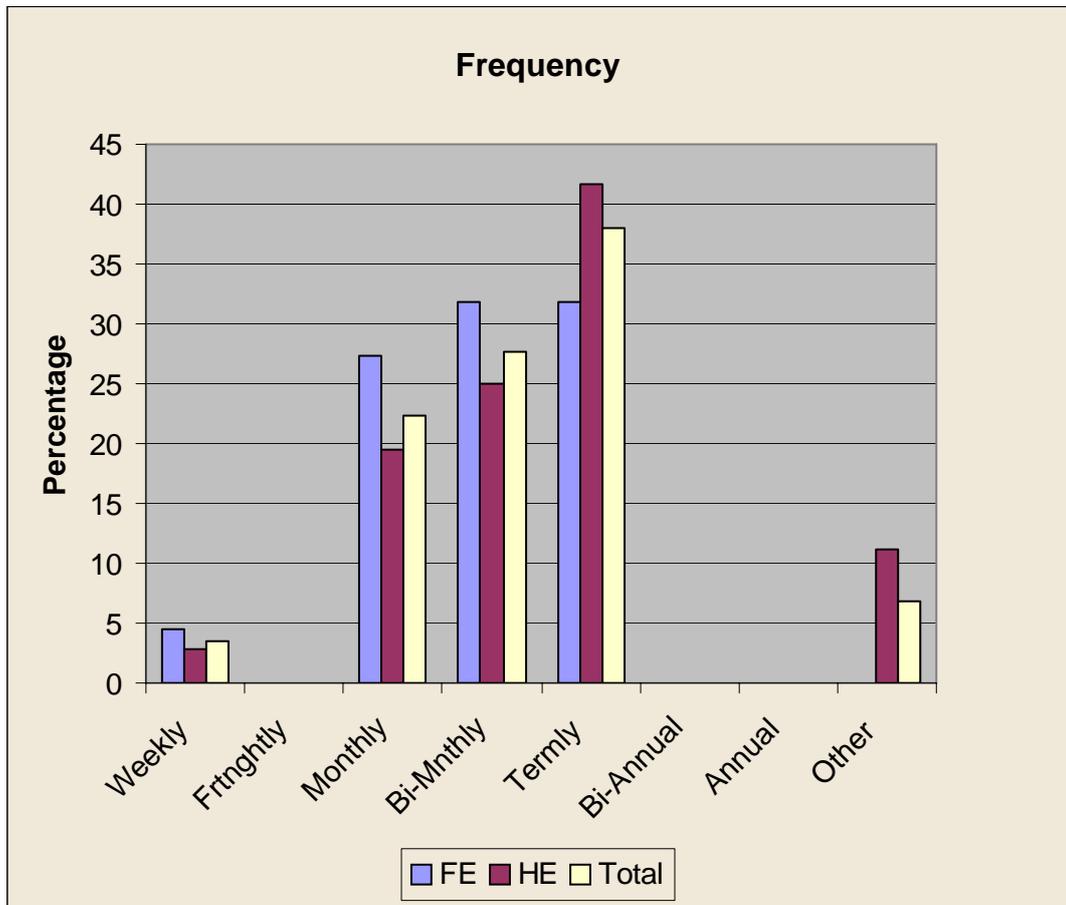


Fig. 4.4: Frequency of meeting

4.1.4 Composition

In relation to who was involved in the roundtables, with the exception of computing staff and students, there was congruence between the two sectors. This may be due to fewer computing staff in the FE sector and less organised student representative bodies in the sector.

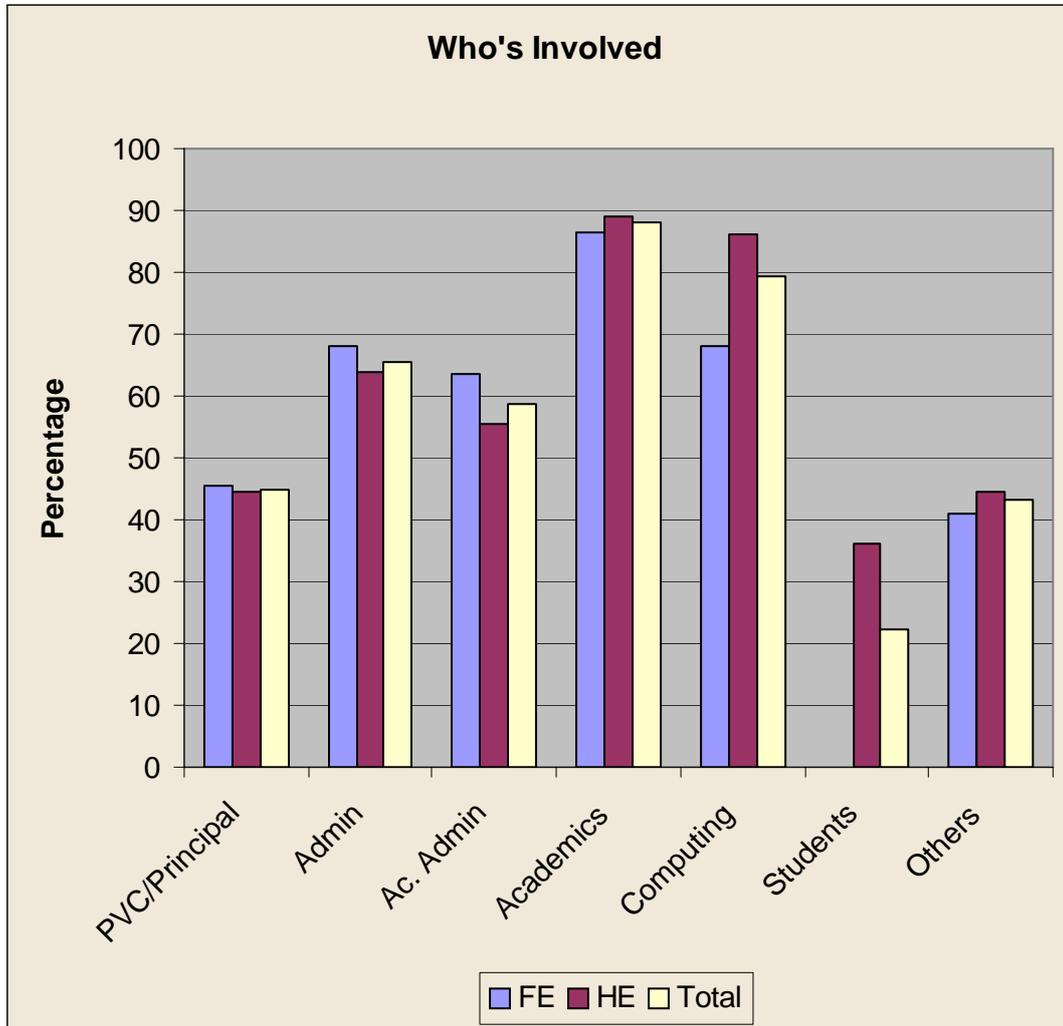


Fig. 4.5: 'Roundtable' constituents

4.1.5 'Roundtable' Rationale

The 'roundtable'-like structures had been set up as a reaction to a number of external and internal pressures. There were many reasons cited for developing these 'quasi-roundtables'. These can be summarised as:

- Providing input into university/college decision making and setting an agenda;
- Sharing information on trends and ICT use in various college/university departments and schools;
- Coordinating the integration of CAL, CAA (etc.) into the college/university curriculum;
- Overseeing the provision of ICT infrastructure across the college and university;

- Forming strategy and addressing the strategic issues of using ICT in teaching and learning and determining the selection criteria for VLEs;
- Providing informed debate about the use of ICT in teaching and learning;
- Enabling the university/college to respond and adapt effectively to continuous and turbulent change;
- Developing and training staff to enable them to use ICT more effectively in teaching and learning;
- Raising awareness of organisational goals and targets;
- Understanding the implications of ICT for teaching and learning;
- Ensuring that learning resources and ICT provision meet the needs of both students and staff.

The evidence from the ground clearing exercise was used as comparative data for evidence gathered from the US interviews and focus groups (Chapter Five) and the UK case studies (Chapter Six).

Chapter Five: International Experiences of TLTRs

5.0 Introduction

Two members of the team went to the *Syllabus 2001 Conference* in July 2001 at Santa Clara in California. The conference was preceded by a 'Leadership' event organised by the TLT Group (see Chapter Two, 'Teaching, Learning and Technology Roundtables' and Appendix B). It was anticipated that a number of institutions with TLTRs would attend the conference and/or the TLT Group's Leadership Event. The team wished to use the opportunity to:

- Speak to the representatives of The TLT Group and gain further insights into TLTRs;
- Interview individual TLTR members;
- Arrange focus groups with TLTR members; and
- Arrange to speak with individuals or groups who had not established TLTRs and to ascertain why they had not established a TLTR at their institution.

In summary, the team developed an interview schedule which focused on three key areas:

- Perceptions of TLTRs;
- Knowledge of TLTRs; and
- Experiences with TLTRs.

5.1 Approach

5.1.1 Establishing Links

Prior to the conference and TLT Group event, the team contacted a number of institutions in April 2001 to establish whether they were planning to attend the TLT Group event and to gauge whether it would be possible to arrange interviews or focus groups with them (or their team). Delegates from a list from the TLT Group Conference in Phoenix in 2000 were contacted. From the list, it was not known whether the delegates belonged to institutions which had established a TLTR.

5.1.2 Follow-up Telephone Calls

The Phoenix delegates who were not intending to go to Santa Clara were asked whether they would be willing to take part in telephone interviews. A total of eleven telephone interviews were conducted in August 2001.

5.1.3 Methodological Issues

As far as the Santa Clara data are concerned, although times had been pre-arranged, many potential interviewees wished to reserve judgement until the final conference schedule had been announced. In some cases the interviews were thus hastily arranged and, as a consequence, they were carried out in less than ideal interview locations and situations.

5.1.4 Interviews and Focus Groups

A total of six interviews were held with senior representatives of the TLTRs. A further two focus groups were also arranged.

5.2 Key Findings

5.2.1 Introduction

From the face-to-face interview and focus group data it was noticeable that the TLTRs had been established for some time, a mean time of six years, and were, as one interviewee explained “part of the first wave of colleges and universities that decided to form a roundtable... when the concept was brand new.” The telephone interviews were conducted with representatives of TLTRs that had mostly been established in 1995 but also included two relatively new roundtables: one had been established in 1998 and another the Phoenix Summer Institute in 2000. The face-to-face interviews and focus groups were conducted with representatives who considered themselves to be ‘pioneers’ and whose TLTRs set the initial standard or were “the cutting edge of roundtables.” Some were also prominent members of their TLTR: they were either Chief Academic Officers or co-chairs.

5.2.2 Institutional Type

It was noticeable that the TLTRs had also been established in some very diverse institutions ranging from a private ‘historically black status university’ with only 1500 undergraduates to a public university with about 22,000 undergraduates and 4000 graduates spread over four campuses. In general, most of the telephone and face-to-face respondents represented institutions that had multiple campuses and TLTRs improved communication between the various campuses (see below).

5.2.3 Size and Composition

The sizes of the TLTRs varied from thirteen to twenty-five members. In each case they appeared to be quite diverse and boasted representatives from ‘faculty’, computing services, ‘the business office’, audio visual services, ‘the bookstore’ and library services,

“We have a roundtable which is composed of approximately twenty-five to thirty faculty and [support] staff. We try to have representation that comes from all of our different colleges... We try to have support from places like... we have a ‘teaching and learning center’, so we have representation from that. We have our library system, we have our bookstore [and] we try to get one or a couple of administrators.”

Students were also invited to join the TLTR. However, not every TLTR were successful in bringing students on board,

“We’ve always been interested in having students be part of [the TLTR] but, because of whatever reason, they’ve not chosen to be part of it.”

Some were more successful. For instance, one respondent explained that the ‘President of the Student Governance Association’, a students’ union representative, was actively involved while another explained how students were involved in each of the action teams of their TLTR.

Most of the TLTRs tended to follow The TLT Group's recommendations in that they were co-chaired by a member of faculty and a member of a support service. There were indications that the faculty, or academic, representation was the most "sizeable", vocal and "the most dominant group." Once a TLTR was set up a number of sub-groups or action teams were formed. A focus group member explained that, as the TLTR matured, the action teams became streamlined and more focused,

"[The university] got a list of faculty, staff and administrators and organised them into action teams and that was part of the initial TLTR team set-up. [We're into] the third revision of the action team. At first we had ten action teams, then we moved down to seven, and now we are down to six."

In terms of disposition, faculty members, particularly those who had taken the role of co-chair, were the most "active" in the way they used technology both in teaching and research. Others intimated that it was only possible to get the TLTR off the ground if those faculty members, who were actively using technology in teaching, formed the bedrock of the TLTR. It was also made known that while the TLTRs were inclusive in the way that they brought together 'tenured' and 'untenured' faculty, it was necessary that the academic co-chair was a tenured staff member. This was cited as a very important factor in terms of engendering a long-term commitment to the TLTR.

5.2.4 Frequency of Meetings

On average the TLTRs tended to meet twice a semester, or five times a year. This appeared to meet the requirements of the institution. This figure correlates with the data from the UK 'roundtable' experiences in the previous chapter. The telephone interview data confirmed that the roundtable meetings lasted between one-and-a-half and two hours.

5.2.5 Pre-TLTR Decision-making and Involvement With TLTRs

Respondents were asked how they originally made decisions regarding the integration of technology with teaching and learning and how they became involved with TLTRs. Previous to TLTRs there were accounts of "ad hoc decision-making", "no centralised decisions" and fragmentation as individual academics or departments would request individual desktop units as and when necessary. It was felt that this resulted in heavy costs to the institution,

"Departments put their own requests... [they] had a different set of procedures and they were not necessarily talking to each other. There was a distinct lack of co-ordination... [and] there were many cases of repeat buying."

A telephone respondent pointed out that although a formal, centralised committee did exist at their institution it nevertheless concentrated on "computing issues", "met irregularly" and "its constitution was, for the most part, half-interested appointees." The motive was to establish a body with a clear reporting structure, set agenda and included motivated individuals.

Most institutions got to hear about TLTRs by taking part in the AAHE and The TLT Group's national activities. Others followed the development of TLTRs from Steve Gilbert's communication via the AAHESGIT listserv. One interviewee came across TLTRs by talking to a representative from another institution.

It was indicated that higher education institutions opted to become involved in TLTRs because, some six years previously, they had been uncertain and, in some cases, “sceptical” about the potential of technology in teaching and learning. As indicated above many became heavily involved in the national activities of the AAHE and, crucially came into contact with The TLT Group’s Steve Gilbert and Steve Ehrmann. (There were indications that these early adopters were interested in the whole range of The TLT Group’s initiatives, including the Flashlight Program. TLTRs were seen as a single, but vital component of the process of technological change.) Steve Gilbert’s personal intervention and involvement in a number of TLTRs cannot be underestimated and served to motivate institutions to formally develop their own TLTRs.

Initial support from senior management within the institution was also flagged up as a major stimulus to adopting TLTRs. It was noted that the ‘pioneers’ in the mid-1990s were sent to The TLT Group’s events as a ‘reconnaissance exercise’, after which, they would report back to the university directors. On the whole, it seemed that many of the university directors were already in favour of TLTRs and, when their delegates reported back, there was little that needed to be done in terms of ‘politicking’. In the case of one institution, the TLTRs were viewed by the university president as a mechanism to drive major technological change. In this case it was envisaged that the university would become an innovative ‘laptop university’¹² and a considerable change in ethos and attitude was required. Analysis of the chronology of events revealed that extensive planning preceded the formal implementation of the TLTR in this university: TLTRs had been examined in 1994; in the following summer a university ‘development’ team were sent to The TLT Group’s Summer Institute; Steve Gilbert was invited to the campus in 1996; and, shortly afterwards, the TLTR was formally established.

There were other supporting data that pointed to this incremental development and groundwork before formal establishment of the TLTRs. One respondent participated in the AAHE/The TLT Group’s activities with a view to “develop faculty and technology and pedagogy” and did not consciously bring up the idea to his delegation or university directors of the need to establish a TLTR. The formal TLTR was only established once others made the linkages and realised the logic and appropriateness of the TLTR mechanism. Similarly, another remarked that his primary concern was only to establish a “group that was *consistent* with the philosophy of roundtables”. Again, once debates progressed, others came round favourably to the idea of TLTRs.

In summary, there were many enthusiastic comments and many who extolled the virtues of TLTRs. Where there was discord, this was directed toward the institution or the imperfect implementation of the process (see below) rather than the TLTR idea or principle itself. It was established that the primary motive of the TLTR was to spread best practice, improve communication, encourage the greater and appropriate use of technology and evaluation and keep apace with technological trends and innovations, as indicated in the following comments,

“[Initially] the [TLTR] would come together to discuss teaching and learning and how technology, when properly used, can enhance that.”

¹² For an overview of ‘the laptop university/college’ in North America see The Node Learning Technologies Network (1999) or Brown (1998).

“I have participated in TLTRs several times, both as presenter and participant. In general, I have found them to be a very effective way of sharing information and keeping on top of innovative practices in technology use in higher ed.”

“The reason we started it is because we wanted to engage faculty members more in their use of technology on our campus. We regarded it to be very important that we have some way to communicate with one another. Because we had all these different colleges and there was really no effort on our campus to try to share information that was available about how we could use technology effectively to promote the teaching and learning process.”

Some institutions used the TLTRs to then establish workshops or conferences and even invited external speakers to talk about issues of special interest (e.g. “wireless technology”).

Respondents relayed the fact that previous to TLTRs, their institutions did not encourage dialogue but created, or sustained, conditions that resulted in “isolation”,

“There weren’t many structures that crossed departmental, divisional and organisational boundaries. Many faculty in a given department may never have a reason to talk to someone in a support service area or different division... it just didn’t happen [indistinct]... if I knew something, and I was in Geography, about computer technologies, and the kind of information that I could get using, say, a statistical package then that’s not that different from someone in Psychology also using statistical software. But they would not get together!”

“There was lack of communication between staff members in charge of selecting and implementing technology.”

“It’s not that [people] didn’t want to [talk to each other], it’s just that universities are departmentalised: History doesn’t talk to Biology unless they are on the same corridor and then it’s only when they meet on the hallway that they actually say, ‘Hello.’”

However, some were more fortunate and felt that the TLTR ideal fitted in with their institutional culture and practices, and used the TLTR to embellish what they were doing by drawing upon and building upon the disposition of their staff,

“... we engaged in a good bit of discussion among the faculty in both official and casual meetings, where ideas were exchanged for the further implementation of technology in our curriculum. Most of our faculty were quite receptive to the use of on-line course management and other services and devices, and appreciate discipline-based discussions on things like pedagogical implications of diverse technology and assessment.”

On a related issue, one telephone respondent saw the TLTR as a timely mechanism just as their institution had set up a “Center for Excellence in Teaching and Learning” in the mid-1990s. There was resonance with this initiative and the events that were recounted by a focus group member who explained that a very committed individual campaigned and

lobbied hard to establish a unit (the TLTR) that would be dedicated to building resources for teaching and learning. It was envisaged that the unit could then organise and deliver workshops within the institution and spread best practice.

While wider cultural change was the desired requirement in TLTR engagement, many others confirmed that the TLTR had been first established to “launch an initiative”, launch projects or even examine a specific issue. One such example was the use of the TLTR to examine copyright issues, at the behest of the library, during one of its years. It was later qualified that the TLTRs were not a short-term initiative: it was envisaged that the TLTR would continue to exist until new projects needed to be tackled.

Political factors loomed large in many of the discussions. A focus group member was concerned with, what he perceived as, a shifting balance of power within his institution. He explained that TLTRs were a necessary collaborative device against the growing tide of, what he termed, the “rugged individualism” of an increasingly influential, but obdurate, “technical class”, intent on divisiveness instead of cohesion,

“[We] had a rising technical class, playing with lots of money. The Technology Group began to control as much money as other divisions within the institution. We had 28 labs, with between ten and 35 computers in each, all over the place on a small campus: *different* equipment and *different* standards and *different* managers and *different* co-ordinators... [We had] a facilities problem. So the issue is co-ordination, but we were not collaborative... This is the first time that information technology is requiring more collaborative activity and this really showed when you were trying to put a lab together. You have got to realise that you can't make decisions by yourself.”

The TLTRs brought people together and were a form of “bonding exercise”. They bonded individuals, various stakeholders of the institution and, as relayed in a number of testimonies, allowed various campus TLTRs to engage with one another. In summary, the roundtable mechanism allowed people to share their experiences of technological change, as one individual enthused,

“In general I think it is a wonderful program that allows many groups on a college campus to discuss and implement various topics relating to technology.”

5.2.6 Learning Organisations

As identified in Chapter Two, institutions became involved in TLTRs to develop a solid communication structure. In the case of the Red River College (The TLT Group, NDb) it was envisaged that a learning organisation would be created, where expertise and knowledge would be shared throughout the organisation. A very broad definition of a learning organisation is one which “enables each of its members to learn continually and helps them in generating new ideas and thinking” (Baets and Venugopal, 1998: 196). There were many examples of individuals and groups learning from others in their institution or ‘learning through participative strategy formation’ (LPSF) (Quinn, 1992). This is where consensus is the preferred decision-making mode and differences in perceptions and understanding are taken on board during the discussion and debates. In general the TLTR members’ specific experiences of learning via TLTRs could be categorised as (Baets and Venugopal, 1998; Lee *et al.*, 1992; Senge, 1994):

- *Forming* their views or knowledge, or “mental models” on the action-response of organisation and environment;
- *Sharing* their knowledge, getting feedback and forming a pool of knowledge; and
- *Updating* their knowledge in a changing environment.

Reflecting on technological change and organisational transformation, Baets and Venugopal (1998) posit that, by learning from their internal dynamics, organisations will be well placed to adapt to change. TLTRs in this investigation fostered conditions that allowed individuals and groups become skilled at systematic problem-solving, learning from their own experience and sharing that experience with others. It has been posited that this dynamic process of creating, acquiring and transferring knowledge permits institutions to become ‘knowledge-based’ organisations thereby enabling them to improve their planning activities (*ibid.*; cf. Drucker, 1988; Applegate *et al.*, 1988; Quinn, 1992).

5.2.7 Community Building

TLTRs in this study served to raise awareness of the institutional context of change. For instance, it served to reduce the ambiguity of other people’s roles within the institution. For some faculty members the TLTRs allowed them to hear at first hand from technical staff what was or was not possible with technology. Members also were able to understand fully particular problems being faced by technical staff. It was noted that this served to instil “patience” and “understanding” from some quarters within the institution. Although these specific issues were important, the longer term cultural change towards building, what one person described as, “a sense of community” was the real prize. Dill (1994) has reported that “community implies we have values in common”, but it has been argued that this sense of community in North American HEIs is relatively low,

“At work over these more than four decades is an academic ratchet that has loosened the faculty members’ connection to their institution. Each turn of the ratchet has drawn the norm of faculty activity away from institutionally defined goals and toward more specialised concerns of faculty research, publication, professional service and personal pursuits”

(Massey and Zemsky, 1990: 5)

5.2.8 Homogeneity Versus Diversity of Opinion

With respect to engendering immediate ‘attitudinal change’ was concerned there were contrasting ways in which TLTRs were used. On the one hand some TLTRs were willing to maintain the *status quo*, and veered away from attitudinal change, by only bringing on board people who held the same attitudes and beliefs or were fairly well disposed to the use of ICT in teaching and learning. In such cases the roundtable mechanism was simply used to confirm the activities or raise awareness in the university’s departments and campuses. The interviewee in one of these TLTRs rationalised that it was important to create stability and not upset the applecart. He spoke of “hand selected” and obedient members who would not hesitate to tow the line of the TLTR,

“[The members of the TLTR] were all hand-selected. We picked people who were traditionally involved, who traditionally would do something. [They were] people that, when you asked them to do something not only said, “Yes”

but went off and did it and who were, I guess you would call it ‘the yeasayers’. The ones who wanted to move things forward, who want to participate actively.”

When pressed as to whether his TLTR had considered bringing aboard individuals with a more discordant and divergent attitude or view, he answered,

“We did not involve [the cynics] initially because we wanted to be a success. We involved one of the biggest cynics in an activity but it was not good. So we did not invite that individual to join the roundtable after that.”

Later he rationalised that,

“There is no sense... If you want to accomplish something, you do it in the most positive way you can. There is no sense in involving someone who was going to be negative, who would slow things down...”

According to others the roundtable dynamic was used entirely differently. The TLTRs were used by some as a platform to gradually bring those people, or groups, who were most resistant to technological change into a dialogue with those who were actively using technology. Similar to the TLTR described above it was explained that a team of like-minded, but enthusiastic, individuals initially got together and, once a *raison d’être* for the TLTR been determined, new members with differing views and opinions were gradually brought into the TLTR. It was made clear that,

“It is important to balance TLT members with those who are not generally enthusiastic. You are really looking at diversity, otherwise it becomes a real nightmare later... The thing is that you have the pioneers first – technologists – people who really love technology and then [in] this third year [of the TLTR] you have got to get these other groups.”

In this case, diversity did not just mean bringing on board people at the ‘vanguard of teaching and learning’ from numerous departments or services (The TLT Group, 2001), but people with different and divergent aspirations and opinion. There are however dangers with such an approach. If TLTRs are presented as a self-evident good, participants can become ‘morally’ bound to the process. It is a situation which can then be used by managers to use TLTRs as a legitimating device and quell discordant voices, via peer pressure, and instil a form of cultural homogeneity.

5.2.9 Integrating TLTRs

Another respondent firmly believed that the nature of technological change was bringing about psycho-social change in the workplace and that it was important to exploit some of the beneficial aspects of change, particularly in relation to the potential for collaboration (*cf.* Nichols, 1998: 169),

“... The real revolution came when networks came into being. Connecting people rather than isolating them... the TLTR was a way to pull [faculty] out of that isolation and get them to talk to each other.”

For TLTRs to become embedded into the ‘psyche’ of the institution, it was necessary that they did not “usurp anyone’s authority”. For this reason, it was noted that most of the TLTRs were ‘informal’ structures. It was underlined by many respondents that their TLTR was of an “advisory” and not “steering” nature and that they included, in some cases, “members that wanted to participate.” The roundtables would however have a strategic input by reflecting and reporting back to the decision-makers or other formal policy-making bodies.

Given this, if TLTRs were to be taken seriously within the group, they needed to have the expressed support of university directors and presidents. It was felt that such individuals needed to be actively involved in the TLTR, perhaps adopting the mantle of ‘champions’. Their active support imparted an important psychological effect to the remainder of the group and served to add legitimacy to any decisions that were made.

5.2.10 Leadership

Leadership predictably loomed large. There were many accounts of charisma, dynamism and motivation as key traits in individuals and influential leaders or champions,

“[Our Chief Academic Officer], she is great with people and she can talk you into anything! And I think that is the reason why (in fact I know that she is the reason why) TLTRs got started. She is the reason why they have continued. She is the sort of person that can get you to agree to anything and buy anything... She is a unique individual who can get buy-in [from Deans]”

The best leaders understood what made individuals or groups within the TLTR tick. A Chief Academic Officer explained how he consciously tried to maintain commitment to the TLTR by encouraging and “protecting” two ‘untenured’ faculty members. In this instance, he advised them not to become involved in other committees but focus solely on the TLTR. The same individual highlighted, on more than one occasion, the need to be sensitive to the climate, culture, fears and concern of the group. Another respondent explained that the champion at their institution was constantly orchestrating, firing enthusiasm and “rabble rousing”. It was concluded that such a forthright and bullish approach was the only way to get individuals involved, otherwise “the TLTR would not have been maintained.” There were similar accounts of the key role played by energetic and dedicated champions,

“You know it’s that one person who will push, push, push, push, push and try to bring people in to keep things going. That is really critical. The TLTRs, at least at our campus, would never work unless there was at least one person who is willing [to] put in the energy and time.”

Chairing the TLTR required great political acumen and one had to demonstrate the ability to manoeuvre between the various, sometimes competing interest groups, and create “strategic alliances”, by bringing to the fore mutual interests. Some TLTRs were “intensely political”, and it was made clear that this was because,

“... most of the individuals on the [TLTR] will really lobby for their own college or school’s interests and when the final decisions are made, its usually made for political reasons rather than for instructional reasons.”

'Politicking' and forming strategic alliances could be forged *away* from the open roundtable mechanism. (Interestingly, others confirmed that key decisions and manoeuvring happened away from the TLTR – "in the locker room", indicating that in some respects the TLTRs were a form of gesture politics or merely emblematic structures.) The intensely political nature of the TLTRs also confirms educational institutions as highly territorial organisations. The "tyranny of the discipline" among faculty was derided by one individual and viewed as a major obstacle to developing a truly open and collaborative TLTR. In Hoyle's (1986) conception of academic institutions, 'micropolitics' is an ever-present dynamic. Institutions are highly politicised and within them are groups and/or individuals who use strategies and their resources or power and influence to sustain or further their interests.

In summary, the experiences here were reminiscent of Huff's (2000) advice that changing technological management requires "suitable leadership" and an able individual, with enough authority to guide the process along, and who was able to identify critical factors, solicit input and ensure that personal agendas, including their own, did not divert the process from serving the broader needs of the community (p. 637). The experiences were also reminiscent of Baldrige *et al.*'s (2000) depiction of the "strategic ambassador" approach to leadership, which places the leader at the centre of concentric social circles rather than the peak of the organisational pyramid.

5.2.11 Workbook

The team were very keen to understand the role and impact of The TLT Group's *Workbook*, how and when it was used and gauge views of its usefulness. In particular we wished to ascertain whether TLTRs were 'defined' by the workbook. The cumulative evidence showed that the workbook was not used in a prescriptive sense nor, contrary to the team's belief, during every TLTR meeting. It was discovered that it was only used on occasion. It was possible to ascertain from these data that TLTRs can be defined as an 'approach' rather than a narrow and prescriptive 'methodology'. One of the interviewees happened to be one of the authors of the original workbook and he concurred with the view that TLTRs were primarily "an approach" and that it was possible to have a TLTR *without* recourse to using the workbook. He recounted how the workbook came to fruition,

"... I went to the First Summer Institute [1995] and was serving as a facilitator. Steve [Gilbert] had these very theoretical handouts¹³ and he would say, "Do it like this, or do that." Well, I took the theory and tried to bring it down to 'tasks' that [others] could structure and I showed it to him and said, "Steve, do you mind if I reproduce this to use as a handout?" And he looked at it and said, "I don't mind, in fact could [you] reproduce it for all the group?" And from that evolved the workbook."

Respondents viewed the workbook as a way of stimulating individuals and groups to reflect on their "best educational experiences" and what they "did not want to lose." They allowed institutions "to test the temperature" and put in chain a series of "philosophical discussions."

In the case of one institution, the workbook proved useful in engendering a seamless transition when new TLTR members were taken on board every year. The Chief

¹³ It is possible that these handouts were based on Gilbert's questions outlined in *Change* (see Gilbert, 1995b).

Academic Officer here explained how new members would be encouraged to make an immediate impression within the TLTRs by using the exercises and to reflect on their personal and “best educational experiences.” In addition, the same respondent reported how important the workbook was during the preliminary stages of his TLTR,

“... [The workbook] is a way of bringing new people into the history of the group. The other thing is that we used it for quite a bit *in the initial stages*... [it provided for] a good structure for looking at both creating a resource guide and generating a sequence of agendas to get started. Now, five years on, we really don't use it very much at all.”

There were contrasting experiences from the telephone data. A new roundtable, which had been set up in 2000, only used the workbook “selectively”. A delegate from an early TLT Group Institute admitted to using the workbook at the conference but sheepishly replied, “Our TLT participants have not used it at all since returning to campus.” Two other TLTRs which were set up in 1995 admitted that they did not use it at “during the set-up” and since then had only “used pieces of it since.”

The workbook's use was marginal in many of the TLTRs because it was assumed that many of the tasks had ‘already been accomplished’,

“I think [the workbook] fit our campus culture... we didn't need to talk a lot about some of the [workbook] issues...”

Overall, its use was restricted because of the potential divisiveness that could be caused. This was summed up by the difficulties encountered by one TLTR where the Chief Academic Officer wanted to use it selectively to withstand any sensation of ‘dumbing down’ or ‘teaching granny to suck eggs’,

“Well I didn't give everyone the workbook ... I didn't say, “here's a workbook exercise that we're going to now begin.” I could imagine that they would feel like I was giving them colouring books.”

However, in a couple of cases where the workbook was not used, it caused consternation and amplified the indignation of some individuals,

“... I think that [our Director] used the workbook as a way of getting things started. I wasn't involved then, so I missed the genesis of our TLTR (I hadn't even participated in any of the ones held on the campus)... [I then] went to The TLT Group Summer Institute and I thought, “Ah, I wish I had known about [the workbook] before I started!” because I think the workbook is actually very useful. You can ask some questions to get people thinking about the issues around teaching and technology and be involved in some good activities...”

“We ended up not doing the tasks and the minute we stopped we got into trouble. We did not think. We did not have a way to systematically reflect on different issues... we all need to understand issues of cost-effectiveness of evaluation. We all need to enhance coordination. We all need to have a chance to reflect on what we want to gain, and what we don't want to lose, so there is a common notion on what we are doing. And to go on to think about

TLTR tasks makes sure you spend time doing that. The thing about the workbook is that it allows you to have a conversation. When we left the tasks, we ended up having those same conversations anyway, but we had to retrace our steps, so we might as well have done [the tasks] anyway.”

In summary, the author of the workbook was adamant that it was not about the promoting of homogeneity or rigidity across the sector, and he pondered on possible weaknesses in those institutions that did follow it by the letter,

“...I think it is possible to have a very successful roundtable without it looking exactly the same in each institution. And I think that’s one of the weaknesses of the ‘workbook approach’. If you’ve got it set up that way, people will read into it, “this is a necessary condition for us to keep going, and then I’ll hold you to it, ‘cos it’s in the writing!” I’m not sure that I would be too interested in that.”

5.2.12 Networking

As noted in Chapter Two, The TLT Group are keen to bring institutions together via their various national activities, so that they can exchange information and insights and, perhaps, mimic others’ experiences. The team saw, at first hand, this exchange of information between institutions at the Santa Clara conference. One telephone respondent reported they had been “challenged and inspired” by the experiences of other institutions. It is one of the most beneficial aspects of being involved in TLTRs and, the aforementioned telephone respondent, concluded,

“... the TLTR spirit is such that collaboration is the name of the game, and everyone is most anxious to help others.”

This experience of inter-organisational learning (Pedler *et al.*, 1991) also highlight TLTRs as a model for developing institutions into learning organisations.

Many reported how important The TLT Group’s activities were in developing TLTRs,

“Our experience with the Phoenix Institute last Summer [2000] as positive, and led us into a greater understanding and engagement of how best to approach the institutional imperative of a technology plan.”

5.2.13 Difficulties and Obstacles

While most of the respondents were enthusiastic about TLTRs and had realised many benefits, others had encountered difficulty, and sometimes failure, in their institution. Interestingly, rather than focus on TLTRs, respondents in these institutions attributed such limitations to the imperfect implementation of the initiative, often citing lack of resources, lack of funding, time constraints and support from senior personnel.

In terms of timescale, TLTRs were at their most “vulnerable” during the initial and planning stages. This was a time when the veracity of the TLTR had to be communicated to potential TLTR members and, crucially, to senior personnel. The factors that inhibited the development of TLTRs were varied. One person who saw “a great deal of promise in the TLTR concept, bemoaned the inability of their institution to develop a credible or “true

TLTR” because of institutional instability. This instability meant that the desired impact of the TLTR, in terms of less re-work and greater coordination, were not realised,

“We are stalled in our implementation of a true TLTR. The duties within the concept are still spread across numerous campus committees including a Technology Committee, a Distance Learning Committee and a Teaching and Learning Center Committee. Fortunately, we have some level of integration as a few members, myself included, sit on all three committees. Still, there is great deal of crossover, a duplication of efforts, and an incomplete sharing of information.

“Our problems primarily stem from a lack of available personnel. Most of those who embrace the concept are already overly committed by virtue of their numerous assignments within the institution. Additionally, we are having a change in top level administration. No one is sure of the level of commitment our new president will have toward the TLTR concept.”

It was lucidly explained that as the institution was bereft of support from senior personnel, it was subsequently difficult to elicit any meaningful support from other quarters, especially the senior administrators,

“As to advice, it is critical that any TLTR initiative secure administrative support and participation from the outset. Additionally, broad based support and participation should be secured from all constituencies within the institution. We unfortunately missed the mark in both of these areas. Our initiative had administrative support but lacked participation from anyone in the senior administrative level. This led to a dropout of different constituencies due to a lack of perceived importance. We had planned on attending last year’s conference with a group of ten, but only four came.”

The following solution was then given,

“If we had it all to do over again, we would appoint someone as TLTR coordinator, an individual with enough time and commitment to make it happen. We would secure senior level administrative participation, thereby increasing our leverage in securing the participation of all constituencies. We would work toward a model of efficiency that would ultimately result in the disbanding of our disparate committees. The TLTR would meet on a monthly basis and the institution would move forward as a unified whole.”

Similar accounts of impasse, inertia, institutional instability and lack of senior administrative support was witnessed at other institutions,

“The higher administrator who was interested in it is leaving the college and our Interim President is not interested. Perhaps we will try again when we get a permanent President.”

And,

“In spite of the work we do with TLT-Group in other areas, we don’t,

and have never had, a formal TLTR; though we will help craft the next assessment project just underway - Steve's effort. We have had a couple of efforts attempting the same concept, however, and both have dissipated from lack of administrative support. [This university] has had six provosts and two presidents since 1996 and the formation of our unit. Frankly, new technologies, distance education, and a steady diet of budget cuts for a variety of unpleasant reasons have cast all technology initiatives in very problematic light."

Although, this was later qualified,

"We may at some point develop a TLTR, but our current system of planning and supporting instructional uses of technology is working well so far."

There were problems 'closer to the ground.' These ranged from individuals' perceptions that the TLTR was one where membership "carried a certain degree of status." As a consequence, it was difficult for some to accept students or fellow academics,

"It was difficult to get [senior academics] to work with staff with lesser degrees. Many of our staff have only baccalaureate degrees and our PhD faculty just don't give them a lot of respect, even though they had greater technology knowledge..."

Also, it was recounted that faculty would only decide to participate if the TLTR agenda was of personal interest to them. The level of debate and discussion within the TLTR could therefore be of varying quality,

"Why do faculty participate in the TLTR? It depends on who's facilitating it and what's hot on campus in terms of technology. If you can identify a topic or interest that faculty want to talk about they will [participate], but it's pretty variable. When I facilitated the TLTR we talked about things like electronic dissertations: 'Is that a good idea?' 'What do we need to go through with it?' There were a whole group of faculty that came who had departments who were already thinking about it. And they were a group of faculty I had never seen before!"

The same focus group member talked about how the TLTR composition would be altered as it became more "topic driven". This was later explained in relation to TLTR sessions which discussed "copyright issues," when library staff dominated the group, resulting in disinterested and disillusioned faculty,

"Last year all we did was talk about copyright issues and never, never got beyond it! At every single TLTR that was what was discussed and the expectation was that we were going to rewrite the institution's copyright guidelines and policies. I can't remember what they were and it never happened! It never happened because of the person who was facilitating the TLTR. You see, he made it sound like that was what was going to happen but it never did. It turned the faculty off, they got tired of it..."

There were few examples of rewards to TLTR members. An example was recited by one individual who explained that the monthly TLTR would have as few as two members on some occasions. The champion decided to revamp the TLTRs by appointing a faculty member from each school, “who would be compensated to participate” when they were given a laptop computer¹⁴.

There were other seemingly insurmountable technological problems that overshadowed the development of some TLTRs,

“It was very exciting and I had high hopes, having followed Gilbert’s work via the AAHESGIT list for years. Unfortunately, for our campus, the TLTR was somewhat of a dismal failure. There were so many technology infrastructure problems that pragmatic concerns quickly overshadowed any suggestions put forth by our TLTR group. Our TLTR was disbanded fairly quickly via neglect.”

However, the same respondent was not too despondent as the groundwork for the TLTR stimulated other developments,

“On a better news front, other groups formed on campus and through connections with a variety of them, many of my TLTR goals have been addressed. Some, not all.”

Another problem related to the competing ideas and perceptions of a TLTR. One Chief Academic Officer explained that his vision of a TLTR was not a transient structure and this was at odds with the benign and unadventurous vision of other senior staff,

“There was a desire to think of themselves more as a taskforce than as a roundtable. In other words they would say, ‘let’s get something done and then we’ll be finished and disband.’ Well I tried to deal with this by saying, ‘We can as a roundtable be a permanent structure that might spin off a series of taskforces and subgroups.’”

There was frustration in the way TLTRs evolved and developed, especially when they veered away from the agenda, and stimulated seminars or demonstrations rather than any meaningful action,

“Our TLT Roundtable still exists, although we had a difficult first year. Our campus is going through some dramatic changes, and those of us who planned the Roundtable were unable to put the effort into it that it required. Our meetings tended to be dominated by the “Good Practices Demonstration” that got longer each meeting until we could do nothing else. This discouraged the development of “Action Teams,” which to me was the key to success, and it alienated some faculty who didn’t have time to passive watch people talk about their courses. We are going to start fresh again this fall.”

The wish to “start fresh” gave the impression that developing TLTRs was about ‘the journey’ rather than the end ‘product’ *per se*. The above experiences also underlined the

¹⁴ On a more jovial note a focus group member explained how they brought “cookies” along to their “poorly resourced” TLTR and explained, “You just have to have food at these things!”

need for effective leadership within the TLTR, especially from the chair. A focus group member gave an intriguing insight of a TLTR that changed their chair every year and, in the process, fluctuated and was “very uneven” in terms of the quality of debate and overall productiveness. In some years the chair wielded enough influence to bring on board senior staff like the Provost and deans and be more “action oriented.” In another year, when a different chair had been appointed, the TLTRs lost their wider focus and concentrated on a “single topic”, resulting in fractious “bitch sessions!”

The TLTRs had realised many benefits. Respondents were uncertain how they would develop. A clear concern was feeling that some institutions had “harvested the low-hanging fruit”, the easily obtainable results, but would come unstuck when more deep-seated issues needed to be tackled. When reflecting back on the initial years of their TLTR, another respondent felt that the TLTR was now more difficult to sustain,

“The first years of the roundtable were extremely active but it’s tailed off a little bit in the last year or two... I was the first chair of the roundtable on our campus. Maybe when things first got started it was easier to generate interest and enthusiasm.”

Thus it may have been relatively easy to bring in and ‘mop up’ those who were relatively enthusiastic and disposed to using technology in teaching and learning. The real challenge is to convince the uncommitted. It is “a harder sell” but they have much more to gain by involvement,

“I regard [our TLTR] as being significant but I regard it as being less significant than it was when I started out. Primarily because it’s been hard to generate the sustaining enthusiasm we had that existed in the beginning. Here’s what I think happened... Back at the beginning we were able to bring on quite a number of faculty members that were sort of at the fringe in terms of using technology. They are now engaged and they use technology effectively. We’re now at a stage where we are trying to get to a different population... and for those people it’s a harder sell. Those that are on board are doing fine... But it’s this new group of people, it’s more difficult for us to be able to bring them on board.”

One person likened the TLTR to a “booster on the rocket.” It was explained that, “the energy of the rocket could either take off or drop off.” Alternatively, the TLTR could “take on a new role, but may not need it if a group of people are habitually working together.” From this prognosis, and the previous experiences, it may be possible to graphically illustrate the trajectory of a TLTR¹⁵(*Fig. 5.1*). They are reminiscent of Fullan and Stiegelbauer’s (1991) characterisation of organisational change as three stages: adoption, implementation and institutionalisation. From the adoption stage staff attention and senior management commitment needs to be secured. As more stakeholders are involved over time the organisation will be well placed for ensuring successful implementation and institutionalisation.

¹⁵ Model adapted from Brockman (1992).

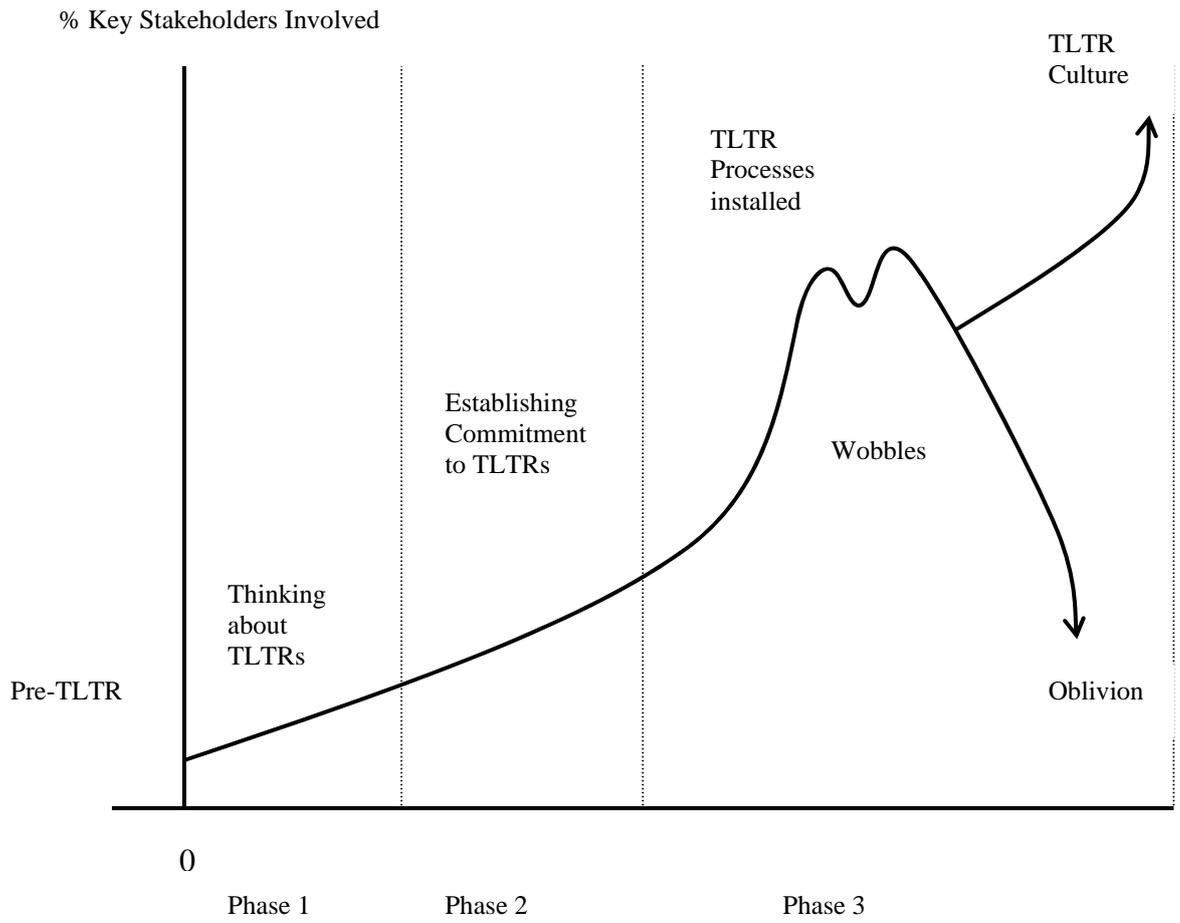


Fig 5.1: Progress of a typical TLTR Initiative

5.3 Conclusion

The North American experiences of TLTRs reveal that their appeal travels beyond systems change to the management of human resources. It was clear in the interviews and focus groups that the real key to the success of effective technological change are the people. If the individuals and groups are not committed to the TLTR, or see any value, then the process is doomed to failure. It was implied that it is relatively easy to change technology, systems and procedures, but much more difficult to change people's attitudes, perceptions, values, motivation and behaviour. Herein lies a problem with TLTRs. While much attention is devoted to reflective exercises, evaluation and what accounts for the effective running of meetings, there is scant consideration given to the process of 'winning' group support for, and commitment to, TLTRs.

A consistent theme is the concept of charismatic and principled leadership was also evident. There is a key characteristic: an ability to create a strong sense of direction for the institution and the people in it. Good leaders create a value system for the organisation that enables people to buy into what they are proposing because they can understand and empathise with it.

TLTRs may be an approach to improving the effectiveness, communication and flexibility of the F/HEI as a whole. It may be essentially a way of organising and involving: the whole F/HEI, every discipline, every faculty, every support service, every activity and every single person at every level. For effective technological change to be realised, each 'part' must work properly together, recognising that every individual or group affects, and in turn is affected by, the others.

Our most important finding relates to the workbook. In our view a TLTR can be defined as a sliding scale. At one end of the scale there is the 'purist' form, a highly structured, prescriptive methodological 'cookbook'; at the other end there lies a very loose definition, a general approach characterised by broad membership, discussion, information-sharing and mutual respect. Between the two exists a 'partial' TLTR that picks and chooses tasks appropriate to the requirements of each situation and its corresponding challenge. All seek to effect technological change and organisational effectiveness through learning.

Chapter Six: UK Case Study

Experiences of ‘Quasi-Roundtables’

6.0 Introduction

This chapter presents case studies of the three trial institutions: a pre-1992 university (Institution A), a post-1992 university (Institution B) and a further education college (Institution C). The team attempted to follow the TLTR methodology in Institution A and Institution C. In the case of Institution B, a ‘quasi-TLTR’ was *in situ*: the investigators wished to see how this body correlated with the experiences of the other trial institutions.

6.1 Institution A

Institution A is a pre-1992 university and is an organisation of international repute. A popular university it has in excess of 20,000 students, both full and part time and 5,000 staff. These are housed in faculties of: humanities, engineering, law, pure sciences, social science, architecture and medicine.

The university has grown considerably in the last ten years both in terms of student numbers and in physical location. As with many ‘red brick’ universities the incorporation of local nurse education and a realignment of the local teaching hospitals meant the university has expanded its physical location to a number of satellite sites that range between two and ten miles from the original city centre location. Further developments are also planned for the city centre site.

Although the university’s mission is heavily biased towards research it maintains a reputation for teaching excellence. Indeed its culture has been reported upon by many informants of one in “which less than 21 in a subject review feels like failure.” This drive for national recognition is reflected in all aspects of institutional policy. As such the institution takes issues of access, teaching quality and research very seriously. The university's success at meeting targets relating to performance indicators is reflected by their continuing prominence in the top end of national league tables. The majority of undergraduate degrees are in the 1st/2.1 category.

Its reputation as a research-led university is richly deserved and over the years its staff has earned a number of Nobel prizes. The institution has an annual income in excess of £200 million much of which is through funded research, which, though substantial, is not unusual for a red brick university with a medical faculty. As a result of its success in research the university can honestly claim itself to be a truly international institution that can compete on the world stage. However this international success has not removed the institution from its roots. It maintains an expressly stated commitment to aiding in the economic development of its local region through links with local industry and adding its expertise to the microeconomy that surrounds it physically.

The management and governance of the institution follows a normal pattern for this type of institution. Academic policy is established through the university senate and its subcommittees with organisational policy decision made through the university council. Executive oversight falls to the Vice Chancellor (VC) and the Pro Vice-Chancellors

(PVCs): senior academics that hold their posts for a four year period. At the end of the period of appointment the PVCs return to their academic postings. However their experience is not lost to the institution as previous PVCs are often delegated responsibilities in support of the management of the institution.

6.1.1 Organisational Readiness for e-Learning

As an institution which considers itself as being at the cutting edge of technology the university has considerable experience of attempting to manage the introduction of technology into teaching and learning. Some groups which had looked at the role of network learning had been established almost two years prior to the project commencement but had naturally wound up. Other elements of e-learning were subsumed within the general committee structure of the institution. There was a sense that it was right and proper that issues surrounding e-learning were considered in the same way as any other educational matter. There was also a sense that it was a sign of intellectual maturity that such discussion was integrated into the mainstream.

However a confluence of six factors – some, changes in the infrastructure, some changes in the environment - prior to the commencement of the project ensured that all types of learning, their delivery and their management were reappraised. The first of these happened some years prior to the commencement of the project, which was the creation of an administrative unit to have oversight of the development of the institutional quality infrastructure. Although this was well before the commencement of many of the debates in e-learning, the establishment of this unit was a sign to the university that the senior management group (SMG) felt that the maintenance of the best possible teaching quality was an institutional priority.

The second critical event was the creation of a university wide teaching and learning strategy. Gibbs (1999) advised that the actual policy on developing teaching and learning was perhaps secondary to the way in which the policy is created. In some senses the institution failed to maximise an opportunity here as the PVC responsible for the creation of the teaching and learning strategy himself noted, in a meeting discussing teaching and learning:

“The teaching and learning strategy was not created in ideal circumstances, it was developed, through consultation, in response to a requirement by HEFCE and it obviously reflects those origins.”

The institution’s teaching and learning strategy has become a significant document. First, it signalled a further strengthening of the importance of teaching and learning within the institution while second, it provided a focus for those with an interest in teaching and learning. Considering that the institution is research-led and has had as its predominant culture what one informant described as a “monogamous relationship with research, forsaking all others” this focus seems to have given a positive message to many staff members and encouraged them to more actively pursue their interests.

Further infrastructure development gave the development of teaching and learning, and e-learning in particular, a renewed impetus. In late 1999 the university merged a number of separate support departments that covered distance learning unit, staff development and the university television unit into a single unit. The focus of this new unit was to support the development of multiple learning media from inception to delivery. As such the unit not only produced materials but also supported academic staff through the change process that

was associated with exploiting new technology. If this was not responsibility enough the unit also fulfilled a more informal role, spreading good practice and innovation across the faculties.

The final structural development that enabled the development of teaching and learning was the implementation of a common VLE for the institution - WebCT. As many informants within the institution commented the implementation of WebCT did far more than just provide a common delivery platform for the institution. The primary side effects of having an institutional VLE were that:

- staff members felt that it broke down technological barriers, reducing apprehension and suspicion, and increasing confidence;
- it signalled to staff that e-learning was not a peripheral exercise but an important, if evolutionary, part of the institutional strategy; and vitally,
- the consideration of pedagogic issues for an on-line environment forced the consideration of pedagogic issues in face to face teaching.

This debate was brought into sharp relief by the first of the environmental issues that occurred just prior to the start of this project and has continued throughout its life.

As noted above the university has placed considerable effort in the attainment of the highest possible teaching quality assessments. Interviews with staff that have a particular interest in on-line teaching revealed that the emergence of technological issues in teaching and learning in subject quality reviews has greatly strengthened their personal positions within their departments. As one informant noted:

“I was always considered to be a bit of a freak in the department and colleagues were always asking why I was bothering with I.T. and on-line teaching when it was obvious that to get on I needed a better research profile. Now that there has been a recognition that if you want to do well in the subject review you have to use technology well I am taken much more seriously – it is very satisfying for me personally.”

Indeed from the many informants' reports that are similar to this it would seem that these grass roots developments are driving the institutions burgeoning e-learning delivery. As it stands e-learning exists in some shape or form right across the institution, in all faculties and in the overwhelming majority of teaching departments.

A second environmental issue that occurred during the data collection phase of this project was the development of the UK e-University by the Government and the statement by the Massachusetts Institute of Technology that e-learning was a central (and free) plank of their future strategy. As a university that prides itself on being an international player in education and research this provoked considerable interest at all levels within the institution. At that time informants across the university indicated that this provided a final legitimisation for the engagement with, and development of, e-learning. The historical significance of these events remains to be seen, however it is worth noting that many of the interviews undertaken during this period reflected a heady optimism about the pivotal role of e-learning within higher education. This seemed to be especially prevalent among those

who had been or were taking in the many externally funded projects into e-learning that were being undertaken across the institution.

6.1.2 Developing the Roundtable

The institution was working to put into place more coherent and robust structures for promoting good practice between individuals and departments. As a result the new media unit, after discussions with the research team, agreed to trial the TLTR. These were attractive as they were perceived as being:

- informal;
- facilitative;
- a good cultural fit into the collegial structures of the university;
- a way to link good practice to the development of strategy; and
- manageable by the unit.

The development of the roundtable itself commenced in mid 2000, shortly after the commissioning of this project. As noted earlier the institutions that would be trialing the roundtables sent delegates along with the research team to the TLTR Summer Institute in Phoenix, Arizona, that individual being charged with the responsibility of “championing” the institutional roundtable. In practice this meant creating an environment that would allow the roundtable to not only be established but to flourish. The preliminary work of the champion was as follows:

- Gaining access to the institution;
- Gaining the support of the SMG (in particular the PVC responsible for teaching development);
- Developing the roundtable as a legitimate forum with links into the institutions pre-existent committee structure; and
- Providing a clear link between the roundtable, the university management and the research team.

Even at this very early point in the project it was clear that the role of the champion was not going to be an unproblematic one. The champion and *de facto* leader of the roundtable implementation was not a senior manager either within the university or within the media unit. In addition the roundtable had to be developed ‘from scratch’ as there were no current committees that the roundtable could be grafted onto. Finally at that time the operational guidelines for the roundtable were deeply geared towards the American sector and reflected the language, biases and assumptions inherent to that system.

Therefore the starting point for the research team and the champions of all three institutions was the ‘translation’ of the US workbook into a recognisable UK format.

What was unforeseen either by the research team or the champion was the level of difficulty this workbook would generate. The first point of tension was with the university administration. It was clear at the first meeting with the administrators responsible for managing the quality infrastructure in October of 2000 that the creation of another structure to enhance good practice in teaching and learning was treated with some scepticism, particularly if they were going to have to deploy resources for its support. This was crystallised by one administrator who asked,

“when we already have committees that make decisions on teaching quality why do we need another one?”

Given the level of workload that the administration was undertaking in support of quality initiatives this was not an unreasonable question to ask. However as was noted by the champion at the time it is also a difficult question to answer. To make a business case for an alternative structure to those which are already in operation is very difficult to achieve, particularly when the champion has no formal authority and little influence. Furthermore to have the differences of experience in teaching on-line to traditional teaching challenged by sceptical junior administrators was perhaps not an experience that the champion was either prepared, or equipped for.

A second tension from that early meeting, and one which would become a motif for the roundtable experience at the institution was the differentiation between a ‘roundtable’ and a ‘committee’. Subsequent conversations with administrators have shown that the idea of meetings which do not appear to have clear leadership, remit, lines of authority and decision making functions is so far removed from all that has been considered good administrative practice that the roundtable conception was a problematic one to follow.

Further in many quarters not least the administration of the institution the implementation of a guidebook for the development of the roundtable meetings was particularly unpalatable. Critiques of the workbook followed three general themes:

- The necessity of guidance on the running of meetings;
- The tone of instructions; and
- The specific exercises.

In addition to which there was a further barrier which would only emerge later on in the investigation which was one of, perhaps, misplaced judgement. Given the tone of the critiques that were being issued within the organisation there was a genuine reluctance to raise even the possibility of using the workbook with the PVC as it was felt this might reflect on the judgement of the individuals suggesting it. Whether this would actually have been the case seems unlikely. However those fears that were shown remain significant.

6.1.3 Implementation

As a consequence of these deliberations it was some months before the first meeting of the roundtable would actually take place (the preliminary negotiations for the introduction of the roundtable took place in October 2000 while the first real meeting was in October 2001). These revolved around membership and the nature of the meeting, and the reporting structure of the meetings.

Specifically the roundtable was founded under the following terms of reference:

- That it would be chaired by the PVC responsible for learning and would be made up of senior managers from each of the major departments, librarians, central computing, and teaching support units with only a few junior academics;
- That the first meeting would decide the structure for future meetings the remit and the way in which deliberations were recorded and disseminated;
- That the meeting would take the format of a working group;
- That the working group would report within the central committee structure and report to the Learning and Teaching Development Committee; and
- That the working group would consider issues of implementing e-learning as part of the existing teaching and learning strategy.

The first meeting went ahead and ran smoothly. However this was far from the roundtable experience that was observed in other institutions or reported upon from the States. It was in fact a deeply formal committee/business meeting which had three items that were discussed in depth.

Interestingly it was the view of the meeting that although the subject matter was important, strategic decisions were made in other forums and what was really needed was a meeting of front line teaching staff that could in the words of the Chair :

“Share their experiences, needs [...] and report on the impact that our strategy is having on them. What we don't need is to revisit discussions whether we should be using WebCT or Blackboard”

Indeed one of the major findings from the observation of the meeting was that senior managers, particularly the PVC (Learning and Teaching) and the Head of Corporate Computing met regularly to plan and manage the strategic development of ICT within the institution. Consequentially, the meeting was adjourned until a sub-committee could be formed made up entirely of non policy making staff including academic and central resource staff to provide ‘chalk face’ experiences of technology use.

Following this meeting there appeared to be a hiatus within the institution, the champion, who was charged with the establishment of the sub group was unable to concentrate on the formation of this group for some time. As a result the arrangement of membership, administrative support, location, and terms of reference took some four months to achieve making it almost a year since project inception for the roundtable to become operational. Evidence gathered in North America (Nardick, 1999) has shown that while this may be a long period of time it is by no means unusual in the university sector.

The first meeting of the sub group was by some way a major revelation in the data gathering of the project. Although the project was officially over by the time of the meeting (October 11th) data was gathered and a number of interviews conducted after the event. The chair began the meeting by giving some background information to the

formation of the group, its scope and purpose. Though contrary to the ethos of the workbook it was made clear that this was an advisory group established to focus upon the relevant, practitioner centred, issues to enable the effective use of ICT in teaching and learning within the institution.

6.1.4 Teaching and Learning Strategy

The meeting felt that a major starting point in this discussion was the university's teaching and learning strategy. The meeting recognised that the strategy was developed as a response to an external requirement but noted it raised some internal concerns about certain aspects of the document, in particular these were:

- That the document was not widely recognised and known across the university;
- That the definition of what constituted ICT within the parameters of the document was not unequivocal; and
- That the support of teaching quality and innovation was unclear.

As a response to these concerns the meeting discussed the importance of the professional development of staff as teachers. As a whole the meeting felt that there was a need for the university to recognise the need for a culture shift to giving teaching some degree of parity with research. The meeting recognised, from the experience of many members, the power of ICT in achieving this end, particular for departments who have recently been subject to Subject Quality Review. Indeed many members who had been pioneers of teaching using ICT have become recognised within their departments, having previously felt 'somewhat marginalized' for their activity. The meeting further noted the support available within the university for enhancing teaching and learning and the importance of accessing such support but felt it was currently slightly under promoted.

6.1.5 Promoting the Use of ICT in Teaching and Learning

The meeting discussed some general issues of how the use of ICT in curricula could be promoted. It was the feeling of the meeting that some general guidance should be formulated for the institution to cover a number of areas. In particular it was felt that the basic issue to be clarified was what constituted the appropriate use of which technologies in which settings? A question made more difficult by the recognition that ICT is as much a basic tool as it is a teaching strategy. A second issue for deliberation was the development of standards and possibly standardisation of ICT for the development of software and instructional materials. Thirdly, was the question of what guidance should be given to course planning and validation panels in the possible roles and advantages of ICT inclusion in the curricula. Finally the role of staff development mechanisms was recognised in the effective spread of ICT across the curricula, as such, it was felt that this key area was worthy of special attention.

6.1.6 Further Developments

The meeting decided that it would be profitable for the individuals and then institution to continue a programme of meetings. However there was a recognition that the agenda to be addressed is large and diverse. In order to bring some sense of priority and richness to the full meeting discussions it was agreed that that media unit establish a bulletin board where members of the group could present their views. It was suggested that the following could form the first threads for the bulletin board:

- Issues that should be a priority;
- The meaning of the “e-learning” in the University;
- How the profile of ICT in teaching could be best raised across the University;
- How can staff, as professionals, reflect upon their practice;
- Research needs to support e-learning across the institution; and
- Ways in which practitioners can work collaboratively.

6.1.7 Follow-up Activities

Following this meeting activity on the discussion board has taken place but the debate has been at best limited. This is quite a disappointment as the meeting itself, though slow to start, became an enthusiastic and highly animated one. Though the participants were, in the words of one, “highly charged”, after the event the lapse of time between the meeting taking place and the delivery of the discussion board (five weeks) and the length of time in delivering the minutes to the participants (some six weeks) meant valuable momentum was lost.

To date these remain the only activities known to the project that have followed introduction of the roundtable experiment. It may be that the reason for this has been the well documented length of time that it takes to graft a TLTR structure onto an established university governance and management structure exceeding the time taken to establish it.

6.2 Institution B

Institution B has over 24,000 students, employs 4000 staff and offers in the region of 600 courses. Various league tables have consistently placed it as among the best of the ‘post-1992’ universities. It is a modern, flourishing and vibrant university that has invested millions of pounds in recent years in:

- developing a state-of-the-art multimedia learning resource centre;
- expanding the university’s network to handle greater bandwidth demands;
- upgrading to better handle administrative tasks;
- building computer suites and labs; and
- developing the attendant support services.

There is also a growing desire to think internationally by forging links abroad and “making the most of the globally networked learning environment.”

Among the priorities of the university is to continue to widen access. Institution B has a diverse student population, with a particularly large percentage of mature, part-time and ethnic minority students. About a third of the student population live in the local area.

This is an area targeted for special funding because of its modest socio-economic status within the United Kingdom. These data therefore substantiate the university's desire "to contribute to the economic and cultural development of the region."

6.2.1 Organisational Readiness For e-Learning

Institution B is also an innovative university. It has a long track record of providing technology-based open, distance and flexible learning to allow learners to work at times and in ways that better suit their individual needs and situations.

In the summer of 2001 the newly appointed PVC (Academic Development) further highlighted at an internal conference, "evidence of a thriving, dynamic and healthy institution." Listed among the achievements were a "robust and widespread engagement" with the university's learning, teaching and assessment strategy and a successful pilot of Blackboard across the university. He underlined the importance of the university to become engaged with good practice *vis-à-vis* e-learning. The wider learning, teaching and assessment strategy was communicated as:

- Flexible learning opportunity;
- Appropriate use of ICT in teaching and learning; and
- Support for a diversity of learners.

6.2.2 The Quasi-TLTR

The PVC also noted that there was an increasing interest in pedagogy and, while there was a rapid expansion of web-enabled and supported learning, he emphasised that the university would not become a 'virtual university' but instead build on its strengths and continue to develop and employ traditional face-to-face teaching and learning. However, it was felt that the university needed to address innovation in student support, prioritise investment (particularly towards the deployment of the VLE), encourage staff development and training, build on student expectations (and foster an understanding within the university that this was a key driver to change) and continue to share and disseminate experiences.

Prior to the PVC's appointment, Institution B had something of a 'quasi-TLTR' from 1997 to 2000. A university-wide 'programme', which was made up of academics and technologists, encouraged ICT-based teaching, learning and assessment and aimed to elevate "elements of pedagogic analysis and debate, research and development, pilot trials, staff development, benchmarking within the sector, publicity, partnership with students and other stakeholders and change management." In relation to the university's wider strategic priorities, it was expected that the programme would positively promote:

- teaching and learning of the highest quality;
- provide lifelong learning opportunities;
- improve and enhance the university's regional presence; and
- expand areas of research excellence.

The Vice-Chancellor at the time recognised that the harnessing of ICT in teaching and learning would be a “powerful ally” in enabling the university to reach out to new students and it had the additional potential to be more cost-effective. It was further calculated that the programme would assist in the reduction of the amount of teaching space that each student needed; add value to the newly developed multimedia learning resource centre and assist in income generation. In psycho-social terms, it was also projected that the programme would boost staff morale and satisfaction because it was a mission “that almost all staff could contribute to.”

The programme had a core membership that included the central computing services department and a dedicated teaching and learning ‘unit’. The unit was established in 1993 to provide a focus for supporting developments in teaching, learning and assessment within the university through research, staff development, educational development projects and educational research. The programme also actively courted contributions from all the schools and support departments across the university.

In technological terms the programme achieved much in terms of “sorting out the university servers” and providing a comprehensive and structured approach to training and staff development for technicians, to enable them to cope with the new demands placed upon them. The programme went from strength to strength and was a vital means in enabling the university to trial new generations of VLEs. During the brief period of the programme, Institution B forged strong relations with other universities keen to understand the demands of managing technological change.

The programme was only expected to run for three years and, in that time, the key achievements could be summarised as:

- Getting a uniform university-wide policy in place in relation to systems and software;
- Breaking away from a fragmented experimentation with what ICT might contribute to the teaching and learning process;
- Embedding a new pedagogy across the university and not just at a school or departmental level;
- Seizing upon the many opportunities of ICT in teaching and learning; and
- Bringing together a diverse group of individuals and groups at the vanguard of teaching and learning to discuss the integration of ICT with teaching and learning.

At the tail-end of the programme, a parallel committee dedicated to the wider issues of learning, teaching and assessment was established in 1999. A sub-committee on ‘e-learning’ was later established. These ‘quasi-TLTRs’ were moderated and facilitated by the ‘unit’, described above, and supported by funding from the HEFCE Teaching Quality Enhancement Fund. Like the programme, the committees were made up of a broad range of individuals and groups that included representatives from the various university schools, support services and the students’ union. The PVC was an *ex-officio* member of the main learning, teaching and assessment committee.

The main committee was the focus of this investigation. There were broadly two key templates adopted during the meetings. First, the unit would report back to the group. Second, the participants would be encouraged to take part in 'breakout' sessions and discuss issues or perform tasks and would then report their findings back to the group. The chair would then assimilate the various findings. The participants in the group were not necessarily directors of their schools or support departments, but senior and influential personnel nonetheless.

The cumulative evidence, and 'gut reaction', to the committee was uniform. There was general receptivity, acceptance and enthusiasm. In the first place, the rationale for a body that attempted to elicit diverse views and opinions was highly endorsed, as one interviewee explained,

"Unless you engage with people at the front line, it is hard to know how things will or can improve."

The meetings were held in a two hour block during the 'lunch period'. This was not considered to be an irritant to the participants because it was a session most people "enjoyed" or found purposeful (see below). The timing of the meeting was propitious because it "concentrated the minds." In general the participants were supportive of committees that would enact real change and reduce rather than increase their present burdens. More importantly, the committees' mission was imbued with values and ideas that each of the participants could subscribe to.

A number of respondents felt that the immediate and positive effect was one of greater openness and communication within the university and that the institution was beginning to witness an amelioration of 'tribalism',

"There is a definite need to get together and communicate across the school boundaries... and I must say our school had not had a good track record before."

"I think that many schools had become quite insular, school directors had become 'chiefs of their fiefdom'... people were looking at their school first and the university second and built up barriers in the process"

On the specific issue of ICT, it was also clear that its integration into teaching and learning was an enduring and engaging issue. There was a general feeling that it was not a question of being 'for' or 'against' ICT but how schools and support services could adapt and reshape their interests and priorities within the context of web-enabled and supported learning. There was an expressed desire from some to "do more" with technology and, in the wider scheme of things, create a "more dynamic university". Technology was underlined as the centrepiece of this dynamic posture. In brief, respondents held a common belief in the compulsion to achieve ICT integration with teaching and learning that assuaged, to a satisfactory degree, the needs of students as well as staff.

"No matter how [the VLE] is developed, it has to meet demand. It *has* to improve learning. It would be pointless developing any learning environment that is of negligible quality, not operationally efficient or effective, not strictly necessary or is little needed and used."

While others advocated a touch more caution and echoed the PVC's earlier pronouncement regarding the need to maintain a fine balance between virtual and 'real' learning environments,

“For me the most vital thing is to transform the virtual campus to a real campus. Innovative ideas mustn't be isolated in the minds of just a few people... but we also have to be clear that we are all working to create a quality learning environment.”

The above interviewee later qualified his remarks and felt that a more consensual mode of decision-making was required to drive change forward. There are presumptions that students not only accept, but demand, that essential services and instruction are provided to them electronically and are eager users of technology, but, according to one respondent,

“The fact is when you talk to students, they still want face-to-face reassurance. However, clearly when you work your way through the spectrum and talk to postgraduate students, who may be more used to or prefer an independent mode of study... you may get a slightly different response. So information technology's got to be tailored appropriately.”

Other respondents continued the theme of 'human contact versus ICT',

“ICT cannot replace 'the person'. It may be able to supplement teaching and learning, but at the end of the day there is something about human contact and the immediacy of dialogue that has to be maintained.”

Quality loomed large in the testimonies. The committee was a vital means by which coherence could be brought into existing practices. By bringing together the various schools and support services, it was felt that the university would develop a more holistic attitude and greater consistency in teaching and learning,

“I think there is a need to manage the consistency [of ICT-enabled teaching and learning]. In the past there was a perhaps natural tendency to just push things down on to the schools and, in the process, get twelve different responses.”

“I think you want to avoid a situation where you are either doing a lot more or a lot less[with ICT] than say another school. A 'patchwork university' wouldn't look very good.”

In relation to the organisation of the committee's activities, it is necessary to outline in further detail the role of the unit. The unit has a very high profile within the university. Its primary function is to advise the PVC (Academic Development) on the development of the university's learning, teaching and assessment strategy and to support and facilitate the implementation of that strategy. Its overall aim is to enable the various schools within the university to perform to a high standard in the external teaching quality assessments, by achieving the laid down learning, teaching and assessment strategies. The unit provides continual support to develop and implement action plans to this end. Since 1993, the unit has led the field in using rigorous research methods to test and trial techniques and

innovation in education. Their union with the university's learning resource centre has also enabled them to develop an impressive array of multimedia resources in the process.

It was not surprising to learn of the respondents' view that the unit were appropriate moderators and facilitators of the committee. They expressed high levels of confidence, owing to the unit's "[omnipresence] in the university" and the "expertise" they had developed over the recent years. Some schools and support departments had worked very closely with the unit beforehand. The unit were well placed to assimilate ideas and examine the issues surrounding web-enabled teaching in a more critical and constructive vein. Their role as moderators added value to the debate surrounding the deployment of ICT-enabled teaching and they had created a compelling vision of the future and how the university must evolve from its present state. There was also an issue of 'legitimacy' when individuals were returning to their schools,

"Because [the unit] are so heavily involved, it gives weight to people going back to their schools in trying to develop things there... it's like concentric circles, a 'figure eight.'... individuals go back and lobby hard to get things changed. The basis of their action certainly has a bit more legitimacy."

The personal quality of the chair of the committee was singled out by many interviewees. This was an individual who commanded respect and authority. He did not impose himself on the other members, he listened closely, allowed the free flowing of debate and continually gave specific, reasonable and supportive guidance during the 'breakout sessions' of what was expected of them and why. He exuded confidence, charisma and strong interpersonal and social skills and was able to guide the participants progressively towards a shared understanding.

The committee was also extremely vibrant because of the existence of a shared culture. It was clear from the observation and interview data that social networks between the participants in the committee had been developing for some time. They felt comfortable in each other's presence and had become acutely aware of other's dispositions and interests in relation to technology, teaching and learning. Each of the interviewees expressed a desire to contribute demonstrably and actively to the accomplishment of the university's educational, developmental and strategic goals. As one interviewee remarked "I think we're cut from the same stone", implying perhaps that the inhabitants of the group had the same, or similar, attitude towards technology, teaching and learning. Virtually all the respondents expressed a keenness and willingness to participate actively, feeling that they could positively transfer their insights, skills and experiences. In other words, there appeared to be a collective, professional sense of calling to get involved in the committee. One respondent felt that this was an important criterion in driving change forward. The shared attitudes, character and beliefs within the committee were thus seen as an important factor in its success,

"[The committee] tend to include the 'bright, young things'... [it includes] the wild, the wacky and more daring... probably the more interesting teachers that have started to use IT, people who have the ability to make teaching more dynamic..."

Although shared values and behaviour was a critical issue, another important point was the fact that the meetings were guided by the mission of the committee - i.e. the need to

facilitate the university's learning, teaching and assessment strategy. These clear objectives ensured that the committee never lost its focus: the unit and chair made certain that the collective actions of the group were directed toward this common goal. However, this was in part also due to the presence of the PVC (see below).

Another key outcome was the propensity to share learning. The breakout sessions were singled out as a major stimulus to this mode of learning. It confirmed that the committee was not about a 'unidirectional' transfer of information but an active engagement of the participants. It was seen as a device that inspired individuals to use their capabilities, experiences and insights. It was extremely heavy on reflection. It allowed individuals understand how others were grappling with change, to engage with ideas, to affirm experiences and to impart a personal perspective,

"Isn't it strange that we go there as lecturers. We sit there and break out into small groups, only to discover that we have the same problems?"

The group-process heuristics increased the chances that the experiences of individuals were exploited. For some it provided immediate analysis,

"You get instant commentary on what you're saying."

Or brought into sharper focus how changes were being enacted 'on the ground',

"I suppose I learn off other people. There is a huge problem about work in that you never get the time to do all the background reading and yet you are charged with the responsibility of developing a strategy for your department and respond to what is going on. You can read as many documents as you like but there is a qualitative difference between the rhetoric and actually doing it. The authority of your knowledge is only authoritative if you can place it with what's going on."

Or allowed individuals to speculate on the changes that new learning environments would bring to the university,

"I think in terms of where the university is in relation to developing Blackboard, so much is unknown. So you definitely need the sessions. By linking up with the schools you get to know the different problems and 'flavours.'"

And to possibly transfer or diffuse successful innovations,

"Some people have a very different take on a problem and are successful with it. In that case, we need to learn from them and see what we can do to accommodate such approaches."

"It gets you to think, 'oh look what he's doing! It's more interesting than what I'm doing!' [The committee] then enables people to go back to their school and fire up enthusiasm or perhaps find other like-minded people there."

The chair was singled out for developing in the team, during the breakout sessions, the capability to go beyond what was given and build on their own experiences.

Individuals felt able to impart their experiences because of the general informality of the meetings,

“I think there should be more of it! [i.e. informality]... I think you tend to get banded by structures, and you’re talking to someone who does attend the boardroom stuff. The informality gives the meeting a bit more drive and more energy. Certainly people tend to be much more creative.”

The informality was maintained in the presence of the PVC who sat on the committee, but did not chair it. This was an interesting dynamic to observe for the investigator. First, his presence had symbolic value and was clear evidence that the committee had wholehearted and enduring support from the top. Second, respondents did not feel stifled by his attendance. They felt he could hear their experiences at first hand, and believed that they could put forward ideas and get immediate feedback. The observation data indicates that the PVC was always on hand to justify and clarify when necessary, but he did so in a manner that did not undermine the position of the chair or the free flowing of debate and discussion. The widespread acceptance of the PVC was attributed to the fact that he had participated on the committee before his appointment as PVC as “an interested Director of School.” He was seen to have values and beliefs that accorded to participants’ beliefs,

“[The PVC] had an almost personal agenda [before he became a PVC]... and it was how to roll out new ways of teaching and learning that had academic credibility and ... where standards never wavered.”

As a consequence the PVC knew many of the committee members and was conversant with the committee rituals. Overall, he was deemed to have had a positive impact on the committee and exerted a powerful latent force,

“[Because he is there] You don’t waste time... You want him to hear the really critical things, and this brings out quality in the discussion.”

Another participant from a support service explained,

“[The PVC’s] presence is absolutely vital for me. If someone has a direct question for me, I could just turn round to [the PVC] and ask, ‘Are you willing to fund x ?’ And he can give me, and the group an immediate and straight answer.”

As explained so far, the committee imbued the participants with: an awareness of what was going on in the university and how it was to develop. However, as intimated in the above testimony, there were wider political uses. The same participant had explained how they had used the committee as a ‘lobbying mechanism’, both for themselves in seeking guidance from the PVC, and also between other members of the committee,

“There are people in that group who find that having me there provides some form of comfort, because they see it as a way to lobby, to get what they want.

[The committee] is a mechanism for them to make the right contact in order for them to meet a range of university objectives.”

Others described the committee as a necessary means “just to touch base” and a method of “intelligence gathering and reconnaissance.”

Respondents were less clear in terms of what would happen to the committee, or the teaching, learning and assessment strategy once funding to the unit had dissipated. A few were philosophical, and perhaps realistic, and predicted a ‘natural’ demise,

“I see it as just dispersing when it comes to the end of its natural life... and it *will* have a natural life. I suppose it’s because you imagine that everyone will become competent practitioners. Ideally, there should be no need for the committee, especially in its current format.”

“I think some of the immediate issues and, in many ways, easy problems were easy to contend with, so from one point of view [the committee] has been a success. There are more deep-seated concerns which I don’t think have been, or can be broached by [the committee] yet. We have to discover how Blackboard will pan out. I think once these other problems arise, we would have to consider whether this is an appropriate mechanism. I would suspect it would need further ‘tweaks.’”

6.2.3 Conclusion

In conclusion, most of the participants of the committee felt that it was ‘their own’. The committee was driven by a mission which was not vague or imprecise. The committee accorded with values and ideas which had long been acknowledged by the participants, and the meetings and breakout sessions offered the kind of experiences which were of interest to them. The breakout sessions enabled the participants to join in the diagnostic efforts and, crucially, lead them to agree or discuss what the basic problems were.

The consensual group decisions and problem-solving were particularly stimulating to a number of interviewees. Owing to the fact that the participants were “cut from the same stone”, many were thus able to empathise with opposing or divergent views and recognise valid objections. The meetings were expertly coordinated by the unit, and there was provision for constant feedback, clarification and the free flowing of debate. Participants were accepting, experienced support and had trust and confidence in their fellow members and the unit. The unit were pivotal in the smooth running of the committee. They inspired confidence and engendered a constructive behaviour within the group. They instilled in the committee an understanding of the external and internal factors that were driving the need for change, the strategic options and context of transformation. The PVC’s presence sent a potent message back to the participants that they had the support of key power groups.

6.3 Institution C

Institution C is a very large multi-site college of further education. The college came into its current form following the amalgamation of the various sixth form colleges and further education institutions. As such the college is comprised of the many campuses across the city. The College offers an extensive range of options, drawing on the skills and expertise of 800 teaching staff from a broad background of academic and professional disciplines.

Specialist staff provides expert guidance, helping students develop their talents by making the most of the opportunities available. College facilities are self-described as including well-stocked libraries, learning centres, language laboratories, access to computers, sporting and recreational facilities, cafeterias, guidance and counselling centres and student accommodation services.

As a mainstream FE college the institutional mission is to provide a broad mix of courses that are relevant to the needs of a socially diverse population that range from basic skills, through school level courses, vocational qualifications and through to higher education. The college maintains exceptional links with other institutions including all the local universities. The college left local authority control following the 1992 Further and Higher Education Act and became an corporate body with a Board of Governors who act as a Board of Directors. At the time of incorporation the college reviewed its decision-making processes and, having rejected options for collegial structures for reasons of responsiveness and flexibility made a conscious decision to create a strictly managerial structure.

It is also an institution that carries a reputation for being troubled; at the time of study the institution had recently appointed its third principal in three years. Its organisational structure had been reshuffled with fewer managerial posts than there were management staff to fill them creating an atmosphere with an acute sense of who were the “winners and losers in the management of change” Watson (1986). The redevelopment of the organisational structure seems to have been precipitated by two events. The first being a number of reports which were less than praiseworthy of the institutions management structures one concluding that the college was ‘failing the educational needs’ of the local population. Second, the college realised that it was falling into severe financial difficulties. Within the institution the previous reorganisations and restructuring that occurred were widely perceived by staff as being ineffectual. Staff often commented in interviews that many of the middle management was perceived as being politically tainted. A view summed up by one informant who argued “how can you have change when the faces that are leading us are the same ones that got us into this mess”. Paradoxically these feelings of cynicism were not held for senior management. The appointment of a new Principal, with a national reputation and well-publicised commitment to learning organisations was viewed with almost unanimous approval.

6.3.1 Organisational readiness for e-learning

Institution C has a varied track record of e learning, on the one hand there are areas of genuine national and international excellence, pioneering courses and innovative low cost solutions to staff training problems. On the other, a sometimes unreliable technical infrastructure, a computer staff ratio that is lower than 1:1, weak and sometimes divided middle management, over reliance on a few key members of staff all combined with the size and multi campus nature of the college have conspired to undermine some truly exciting work. That said, the college has moved a considerable distance in a very short period of time and during some adverse conditions. The various reorganisations and management structures of the past few years could not have helped this journey but there is compelling evidence that the use of ICT in teaching and learning has managed to transfer into a mainstream activity over this period.

Crucially, staff’s technical skills were increasingly sophisticated in the lead up to the study. Though the average age of lecturers had increased to 48 with many of the younger staff with presumably greater exposure to ICT at a young age leaving the institution the majority

of staff were computer literate. Furthermore the integration of ICT into teaching and learning was becoming increasingly sophisticated. The common attitude on the commencement of the study was one of appropriateness, i.e. where ICT was appropriate to delivery of the curriculum it was used and where it was not appropriate other methods were engaged in. This placed the institution in a more advanced state of thinking than was found in other evaluations of the sector such as the impact analysis of the National Learning Network. Yet behind this sensible and sophisticated approach to the uses of ICT in the learning process staff were often suspicious of the uses that ICT may have as management control and in some cases hid their true level of competence.

Along with many other institutions in the sector the real impetus for using technology has come from individual, or small groups of teachers. While this is on the surface identical to the ways in which the, comparatively, resource rich higher education institutions have developed e learning, the problems and issues that are created by this approach are magnified when put into a context of the further education funding regime. A particular issue and example that was identified was the cost of curriculum development that was borne by the individual within the institution.

As noted above all of the staff that were charged with the responsibility for developing on line courses were front line teaching staff, which in the context of this institution meant that their teaching load varied between 12 and 20 hours per week. Following the nature of the student body this meant that the actual teaching hours varied between 6 and 30 hours per week. Given that periods of low teaching time were habitually taken as opportunities for administration and holidays the overall workload was hardly reduced. In turn this meant that curriculum development for online courses was undertaken either by individuals in their own time or by being released from normal duties with their workload being carried by their fellow staff. Each of these strategies in these circumstances is problematic. In addition to ethical issues of payment and ownership the use of own time management is both haphazard and damaging to the organisation as well as the individual as both quality of work and health have been shown to suffer as a consequence. What is less well documented though is the alternative. The removal of individuals from what were considered by colleagues to be core duties to participate in curricula development activities was treated with a variety of responses, ranging from the unenthusiastic to the harmful. One informant pointed out that,

“(ICT curricula development activity) is seen as an indulgence, something you do to make yourself look good while skiving off from the real work.”

Evidence was found during the investigation that many of those responsible for the development of ICT in this institution were subject to behaviour that could be considered bullying. Exemplars of strategies that were reported included alienation from staff common rooms by their peers, being allocated unpopular duties by line managers or the usual political machinations that have been identified by Hoyle (1986) among others as existing in education.

Surprisingly, given so many of the leading ICT innovators of the institution had reported such behaviour moral amongst the individuals was uncommonly high. Indeed, in a perverse way it almost seems to have galvanised a cadre of highly motivated professionals who were more driven than many others and perhaps worked more closely together,

“I am often working at two o’clock in the morning working on the new learning environment, but I don’t mind - I know that I am not alone because I am getting emails from [the roundtable champion] at that time”.

It would be impossible to understand the organisational readiness of the institution without understanding the role of the individual who became the roundtable champion. The champion occupied a position in the organisation is not particularly high in terms of strict structure, as a unit manager he is neither responsible for the institutions infrastructure nor for teaching staff. Within the strict hierarchy he is perhaps the third level down from the Principal and executive. Yet he was without a doubt the most influential participant in developing the use of technology within the institution and is nationally recognised as a key figure in e learning. Following the evidence it emerges that the champion is the single driving figure providing technological leadership and vision for the institution.

The champion's strategy to deliver this leadership role was both simple and unconscious. Organisational changes had left the institution fractured at a period of great change in the macro-politico environment or as he stated,

“the work needed to be done – nobody else was doing it, so rather than let an opportunity go to waste for the college I just started to get things rolling.”

While this was obviously a period of great organisational uncertainty the champion was able to leverage upon two factors. Firstly, he was relatively untarnished by the organisational politics of that time, using a mixture of personal charisma, egalitarian convictions and enthusiasm to gain support from both peers and those with less formal authority. Secondly he was able to leverage upon the relative technical ignorance of the senior management, by using his status an internal expert he was able to gain far more influence than his formal standing should have allowed.

In this position of influence the champion set about almost single handed in developing not only a vision of the way in which technology should be used in the education process at the institution but also the way in which the policy development process should be established. By placing himself at the centre of several social networks of staff, which crossed site and subject boundaries, he was able to concentrate the technological agenda on matters of practicality rather than strategy and introduce new patterns of workflow. This succeeded in pushing the debate and decision making to lower echelons of the staff thus giving greater self-determination to the cadre of early innovators that were already engaging in the business of technological development. Thus formal authority within the institution was being subjugated to expert authority. This representation of leadership is not without precedent, Baldrige *et al* (2000) investigation into leadership styles in the American universities found a developing style which they termed ‘the mayoral approach’ which represented leaders as brokers bringing together disparate social and subject groups to find a politically acceptable consensus. What was unusual was that unlike the American institutions that have a long history of a collegial, participant oriented decision-making process, Institution C was a singular example of managerialism.

Central to the development of this strategy was the implementation of the roundtable programme.

6.3.2 Developing the roundtable

Prior to the commencement of this investigation Institution C had a well developed Learning Technology Committee (LTC). In common with its organisational culture and style this was essentially an executive body made up from senior institutional managers and unit managers. Chaired by the Principal it comprised heads of each academic department, the network manager, and other college dignitaries. The remit of the group was the strategic management of the educational technology infrastructure. Hence major issues that were discussed included the development of the colleges learning technology plan, the deployment of resources and the ongoing development of the institutional network. It was argued by the new principal that this structure had served its purpose and was no longer a suitable forum for the construction of institutional policy and indeed the first (and last) meeting that was observed participants agreed that the process was probably too bureaucratic and top heavy for the detailed work that needed to be undertaken for the institutions next stage of technological development.

As such, and following a period of consultation a new decision making forum would be developed. The LTC would continue to exist to co-ordinate the work of the sub groups. Underneath the slimmed down body would be created three roundtables each considering different aspects necessary to develop the use of technology. These specialist areas would include, resources, network and VLE development and staff development. The membership for each would cross each part of the institution and each of the roundtables would be based in different sites. It was agreed that coherency was best assured by having the roundtables chaired by site managers who would form the core of the overarching LTC and by having them championed and serviced by a single individual who would establish the agenda, lead discussions and service the meeting.

As with the other institutions in the study the champion was armed with the experience of seeing the operation of American institutional TLTRs and working with The TLT group. Like the other champions he was charged with the responsibility of:

- Gaining access;
- Gathering the support of the SMT;
- Developing the links between the forum and the other elements of the organisation; and
- Providing a clear link between the roundtables, institutional management and the research team.

In common with the other champions he also lacked great formal authority, and was not in a strong personal position to develop the roundtables. Unlike the other champions though he was enabled by a number of factors to quickly and successfully implement the roundtable structure. These were:

- An organisational culture that was geared to quickly enabling organisational decisions;
- The full and active support of the SMT;

- A political awareness which facilitated the building and maintenance of coalitions; and
- A clear vision of what was lacking in the organisational structure and a series of readily identified and achievable goals.

6.3.2 Implementation

Consequentially the first meeting of the sub groups occurred within a period of weeks rather than the long lead time that occurred in the other institutions. The meetings were established almost immediately with a cross site membership of practitioners, technologists and members of staff from the relevant administrative departments under the chairmanship of a site director but to all intensive purposes under the supervision of the champion who remained a guiding figure throughout the development of the working groups. The membership was drawn from a pool largely selected by the champion and represented both the technocratic elite and some who were more sceptical.

At this point it was decided that the main LTC would act as a forum for all the members of the working groups along with the senior managers to bring together the various strands of the committee and act as a directing body. Despite the obvious differences in resources, management style and culture this was in essence the same theory the underpinned the roundtable in Institution A. Strategic decisions at one level and more detailed analysis at a lower tier.

Furthermore, as with institution A and with our experiences of data gathering at the American institutions the membership of the LTC and its working groups took a pick and mix approach to the roundtable methodology. Certain elements of the methodology such as the approach to decision making, membership and ethos of roundtables were retained, while the prescriptive workbook driven elements of TLT roundtables were discarded. What made this fascinating to observe was that unlike the university there was no particular culture of collegiality within the organisation for the approach to be recognised and differentiated from the method. Subsequent interviews revealed that there were number of factors involved in this decision.

The first of these was that of the penetration of the socialisation of the teaching profession within the organisation. It became obvious very quickly that although the institution had taken a decision to follow a managerial approach to the running of the institution the practitioners who were involved in the day to day teaching were already deeply socialised into a collegial culture. The evidence collected from the interviews suggests that the professional training of teaching staff, combined with the overriding value system prevalent within the profession of teaching is one which does not take to prescription. This is not new Barrell (1982: 6) noted;

Teachers [...] are often impatient when they hear about line management in schools. They see it as an inappropriate attempt to introduce industrial techniques into the a situation which is based upon personal relationships. Education, they say, is not susceptible to the imposition of hard headed concepts designed to increase profit margins

It would be easy to disregard Barrell's argument as it was written prior to the education reforms of the 1980s, however in this study the culture of the teaching profession has

shown itself to be remarkably resilient to the march of time and many years of education reform. Informants reported that they were unwilling to be involved in strictures that they perceived as being highly managerial but still identified closely with collegial structures that they themselves may not have operated under but which were inculcated within them during their training and professional development. This professional teaching culture has been noted by many (*cf.* Bush 1986, 1992) as being one of the unique contextual factors education management.

This was not the only response given by informants, managers within the organisation came to similar decisions through a different frame of reference. The newly appointed Principal of the college had made clear his intention to transform the college into a 'learning organisation'. This adoption of the roundtable ethos was regarded in some quarters as a method of achieving this aim. It has been noted elsewhere in this report that the roundtable methodology was developed alongside other chronologically comparative managerial thinking such as Senge's *Fifth Discipline* and Fullan's *Change Forces* and indeed it was interpreted as being from the same school of thought by small but significant elements of the institution. While this made the approach acceptable, it don't make the embodiment of the method that was the workbook acceptable. What was deeply threatening and managerial to the practitioners, was seen as naïve and vaguely insulting to the managers.

From this standpoint it is remarkable that although the old university and the FE college were completely different on almost any standard measure that one could choose to apply, their similarities as educational institutions involved in the process of teaching and learning made them exhibit such consistencies of culture and behaviour. The further development of the overarching roundtable at Institution C was to bring the two institutions even closer together.

As the system developed the first full meeting of the LTC occurred for all members of the working groups to come together and discuss the strands of the various sub committees. Was planned to occur well away from the power centre but would be attended by the senior managers and staff involved and would be chaired by the principal. What actually occurred was quite different. The principal was not able to make the meeting due to a pressing engagement and the overwhelming majority of staff that ought to have been there were also not able to make it. As a result the first full meeting of the LTC was a great disappointment to all those who took part. Interviews with informants revealed that the there was not a great sense of motivation for the institutional roundtable. This was summed up by one informant who reported:

"I didn't think that there was any point in coming to the big meeting (LTC), I had much better things to do with my time, what would happen? We wouldn't do anything new would we? We would get the same discussion that we had had three or four months ago – for goodness sake things have moved on."

and by another who argued;

"what is really great about it (the subgroup they were attached to) is that we do work, real work and things are getting better, communication is getting better, things are happening and we can seem them happening – the last thing we need is another [...] talking shop!"

A second reason for the stay away was also apparent. As another informant explained;

“I have a real problem with coming to these (workgroup) meetings. I have a teaching timetable where I taught 800 hours last year and not all of it is manageable. You have to understand, please understand that I want to come to all these meetings but if I do come then what are we talking about – an afternoon a week? That adds up to three hours which I could be missing [and] mean something like an extra 100 hours that has to be covered. Where is that coming from, who is going to do that? I am a teacher my first priority has to be my students and then its my colleagues. If I am going to go [to the roundtable meetings] then they need to be dealt with – in the meantime I have to prioritise what I do”

This issue of timetable management was a common theme among participants and was felt across all subject groups. While participants felt it was a particularly worthwhile event to be involved they felt they had to balance it against other duties. Furthermore they were often being pressurised by other members of their team or by their line managers, some of whom did not see the relevance, or their effectiveness of the roundtable meetings and may have felt threatened or jealous by the selection of low level teaching staff to participate in decision making. Indeed as was noted previously some roundtable members reported attitudes that were at best disincentives to participate. These attitudes were openly displayed by one line manager who buttonholed a project researcher in a corridor with;

“If the management of this place wanted to know what was going on why did they ask ‘X’ – what does she know about it? If they want to know what’s going on in my department they should have bloody well asked me!”

As a result of the lack of attendance and unwillingness to participate the college SMT decided that the rather than have the overarching LTC as an all embracing roundtable it would reconstitute it as part of the SMT strategy group for ICT. From the authors standpoint it felt that this was a more satisfactory structure for the management team. Although the evidence to support this conclusion is weak an argument could be made that by not supporting the main LTC roundtable they had undermined the original principle of the structure that was created. What was clear was that while they had gone along with the original constitution the SMT were far more comfortable keeping strategic control within a context that they were used to. Whether this summation is valid or not Institution C ended up with a stable and operable roundtable system that was almost indivisible from that which Institution A eventually devised.

Over the period of time that the working groups were observed they evolved in broadly similar ways though with slightly different rates of development. All three developed a clear team ethos and identity. The first two developed it more quickly than the third. Contingency factors in this development seemed to be the relative strength of the culture of control that existed on one site. This appear to impact on both the chair who took some time to open up debate and upon the staff, who despite coming from across the institution appeared to responded differently in different locations. This was particularly notable for one member of staff who was creative and articulate in one environment yet strangely mute in others. A contributing factor may well have been that it was located on a campus that was located at the campuses that had the lowest moral within the institution and, was reported by numerous informants, had a sense of identity that was not part the college. Yet

even here the group managed to develop a sense of self and team working attitude that was creative and innovative in its approaches to policy making.

A second development that occurred across the working groups was that of level of participation. As the working groups were observed careful notation was taken of the number and length of contributions by members and the way in which other members responded to the contributions. For the first few meetings the agenda was dominated by the champion who brought considerable direction to the meetings both personally and by directing the contributions of others, often through subconscious non verbal communication. While this continued to some extent throughout the course of the meetings after six months it lessened greatly and the meetings took a less formal and more personal approach to decision making. While the first few meetings were dominated by three or four individuals the final round that was observed was far more diverse in both contribution and viewpoint.

It would be overstating the case to suggest that these were not consensual bodies, to all intensive purposes the groupings did not question the areas that they were established to address and yet debate still managed to be diverse and take in a wide variety of viewpoints. The groupings created an atmosphere which encouraged confidence and allowed some managerial preconceptions to be challenged and changed and over the period of observation the groupings became less the construct of the champion or the management structure and felt and behaved like entities in their own right. Yet in juxtaposition to this at exactly the same time that the workgroups were breaking away from the obvious control of the champion, his sphere of personal influence seemed to be increasing. A possible reason for this may be that by controlling the establishment of the groups, their structure and their relationship with the agenda at the very beginning his leadership functioned remained as strong as ever but more subtly concealed.

6.3.3 Roundtable Impact

The impact that the creation of the roundtable system had upon the organisation can be viewed in a number of areas, some not immediately obvious or easily measured others more readily identifiable. For ease of analysis they have been characterised into three areas:

- Personal development
- Organisational development
- Policy development

The last of these policy development is the most difficult of all to analyse, as is noted elsewhere in this report the evaluation of organisational change can only be properly assessed over a period of years rather than months. Whether the policies created will be judged successes and failures in the long term and the impact that the roundtables truly had on their formulation as opposed to other contextual factors such as organisational change is for future analysis. However there is plenty of evidence to show that the policy that was created was far more innovative than had previously been the case. A number of solutions to problems such as training and staff development were established that were not in keeping with management viewpoints. The communication of policy was also improved, securing a greater ownership of some ICT policies among staff. Most importantly the analysis of problems and the creation of solutions such as the development of workstation

space were obviously more holistic and while previous policy making often left decision process unclosed the roundtable approach was certainly encouraged greater finalisation.

In terms of organisational development one has to appreciate previous institutional dysfunctions. While the management's flat structure allowed fast, responsive decision making it came some cost. The first of which was in preparing staff to take further responsibility. There was little doubt that there was a wealth of talent that could be prepared to undertake greater responsibilities and provide the college with the managers of the future. Unfortunately the flat management structure did not enable individuals to contribute and develop in any meaningful sense. Secondly, the management structure was unsupported by a credible governance structure, which contributed to a number of dysfunction's, including credibility and trust issues between staff and managers, ownership of policy and strategy and impacting upon the colleges ability to communicate in a credible and meaningful manner to staff. To a greater or lesser extent the roundtable addressed some of these issues, encouraging staff development among participants, improving communication and delivering a de facto governance system to a single area of the institutions business.

Finally and possibly most importantly the majority of the individuals that were involved in the roundtable initiative enjoyed their experiences and felt that they had learned and developed from it. Many of them were given the confidence to aim for further development and reported a greater interaction with the institution. There were some who did not value the experience as much, yet all the subjects that were interviewed reported that they had learned something from the experience.

Chapter Seven: Conclusions

These conclusions consider TLTRs in their strategic, theoretical and pragmatic contexts.

- The first question to consider is, 'Is collaborative change useful when integrating ICT with teaching and learning?' The blunt answer is 'yes'. As noted in this report, the general efficacy of participation and involvement is accepted. There are many questions that *cannot* be answered in isolation.
- What are the outcomes for F/HEIs adopting collaborative change? There are many possible outcomes ranging from the speed and validity in decision-making to greater creativity. These positive outcomes depend very much on the level and quality of support within the institution (especially in terms of: leadership, guidance, advice, funding, staff time etc.).
- What are the implications for individuals and groups within the institution? Our data confirmed that engagement in collaborative mechanisms fostered a continuous process of learning within the institutions and therefore greater adaptability. An open, supportive environment, with clear communication channels, appended with techniques like coaching and mentoring serve to instil confidence and trust within the group.
- With collaboration at its heart, TLTRs therefore 'press all the right buttons'. It is a palatable management idea that touches a chord with many trying to grapple with institutional and technological change. Its palatability is bolstered by the fact that it was an idea developed 'in education for education'. (In the UK, management ideas that have been rooted in the manufacturing sector and/or business have rarely had a strong foothold in F/HEIs.)
- TLTRs are however not a distinct management idea and it does not represent a paradigm shift in management thinking. Like all management ideas before it, it brings together many well rehearsed practices (*cf.* Huczynski, 1993). Although its appeal may be diminished by the fact that it is an idea that is over six years old – there do not appear to be many new TLTRs around - but old ideas are not necessarily bad ideas.
- TLTRs had made impressive progress in a number of institutions surveyed in this study. It was widely endorsed as a valid and effective approach for integrating ICT with teaching and learning.
- While information-sharing is important TLTRs should be judged by the number and scope of changes it has been able to instigate: they are pointless as merely 'information-sharing devices'. Success should be judged by how it translates the debates into real, meaningful action.
- TLTRs are useful in indicating who should be involved and developing robust reporting structure. They provide a discipline of reflection on complex issues associated with organisational change.

- The team discovered that the workbook, in the form of a highly structured methodology, was marginal to the experiences of the US TLTRs. They were difficult to use in the UK trial institutions.
- Where might TLTRs be most useful and when? The data from UK experiences of collaborative change indicate that ‘quasi-TLTRs’ already exist. Most of these were established in the last two to three years as F/HEIs began to develop structures for considered and informed debate around V/MLEs. It was noted that many of these institutions had robust forms of collegiality. TLTRs may be useful in educational settings where there is no, or little history of collegiality, and where the institution is grappling with sudden technological change.
- The schools sector may be ripe for TLTRs (during the course of this investigation there has been much interest from the schools sector in TLTRs, perhaps more than there further and higher education counterparts). The cumulative effect of the many technological changes facing the schools sector has contributed to an environment in which adaptation, reorientation and responsiveness are essential. School leaders are constantly monitoring the ways in which ICT can contribute to teaching and learning and the attendant support tutors need to fulfil their roles to the best of their abilities (many schools do not have the appropriate technical personnel on site). The informal social networks, which make the schools sector such a community, form an ideal basis for structured collaborative change and is discussed in the final chapter (‘Postscript’).
- There are many theoretical issues that may be worthy of sustained investigation. For instance, in terms of culture, there is a fine line between whether TLTRs can affect cultural change within the institution and whether the TLTR is shaped by the beliefs and values of the institution.
- What do we need to set TLTRs up? And how do we keep them vibrant? Effective leaders, vision, motivated individuals, appropriate champions, funding, time and authority loomed large in this investigation. The critical success factors are discussed at length in the ‘Recommendations’ of this report.

Chapter Eight: Post Script

One of the key findings of this study has been that much of the roundtable methodology is already in operation in further and higher education. This is not to say that the whole of the rhetoric and ideology that underpins TLTR's has been used across the whole of the F/HE sector. Rather we have found that organisations have implemented decision-making processes that have developed organically, usually from the institutions culture, heritage and mission. These process fulfil similar remits and in some cases almost identical methodology, an experience which we found to be echoed in all the TLTR affiliated institutions in North America.

One notable exclusion in experiences on this continent has been that of networks of roundtables working together to share experience and improve the operation of technology amongst groups of institutions. There are perhaps good reasons for this, organisational jealousies, the education class system and a policy environment that has historically prized competition over collaboration may make such networks a difficult proposition in F/HE.

However a number of recent projects that have been undertaken within TERG have demonstrated that a role can still be found for the roundtable, and particularly networks of roundtables in the UK. The current government is investing heavily in technology for the school sector, programmes such as NGfL¹⁶ have brought significant sums to the sector, as have less European initiatives such as the Objective One funded South Yorkshire e Learning Programme. Experiences have shown that this expenditure has been spent so far on placing technology into classrooms while supporting mechanisms for training and the sharing of best practice remain at best a piecemeal operation. The authors of this report feel that it is not a question of whether the introduction of formal or informal networks of roundtables in the school sector will take place, but when and how well co-ordinated. We would observe that the roundtable structures that existed throughout the 1990's on either side of the Atlantic were responsible for much of the technological implementation in the F/HE sectors. We are sure that this will also be the case when the schools sector fully embraces technology driven education.

¹⁶ <http://www.ngfl.gov.uk/index.jsp?sec=1&cat=0>

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Glossary

American Association of Higher Education (AAHE)

An individual membership organisation that promotes the changes higher education must make to ensure its effectiveness in a complex interconnected world (AAHE, 2001).

Collaborative Change

The President of the TLT Group defines collaborative change as, “A path and a process enabling an institution to use technology to help reach its educational vision. Diverse constituencies communicate and work together to define and achieve new harmonies of curriculum, pedagogy and technology in support of an institution’s educational mission. Hierarchical and consensus-based decision-making structures are linked together in a well-articulated effort to shape and respond to the accelerating pace of change -- especially to new ways in which applications of technology may be able to support teaching and learning. New technology applications and institutional structures support new collaborations among Academic Support Professionals (library, information technology, faculty development, and others).”

Compassionate Pioneer

The first individuals to attempt to use and embrace new applications of ICT to improve teaching and learning and committed to helping other academics who may not have the technological dexterity or comfort with experimentation. They may be assigned to work with TLTRs (Gilbert, 2000e).

Cost Analysis Handbook

A handbook that is part of the TLT Group’s Flashlight Program, that demonstrates how to analyse the ways that current and proposed educational uses of technology consume time, money, space and other resources.

Current Student Inventory (CSI)

A toolkit, that is part of the TLT Group’s Flashlight Program, that generates

	<p>periodic studies of students' perspectives of changes in teaching and learning practices.</p>
Distance Education	<p>A method of studying in which lectures are broadcast or conducted by correspondence, without the student needing to attend a school or college (<i>New Oxford Dictionary</i>)</p>
E-learning	<p>The use of information and communications technology to manage, design, deliver, select, transact, coach, support and extend learning of all kinds (Lovell, 2001)</p>
Faculty Inventory (FI)	<p>A toolkit, that is part of the TLT Group's Flashlight Program, that enables the institution to glean periodic studies of faculty (academic) perspectives of changes in teaching and learning practices.</p>
Flashlight Online	<p>A web based evaluation toolkit, that is part of the TLT Group's Flashlight Program, designed to create, administer and analyse surveys.</p>
Flashlight Program	<p>One of the key programmes of the TLT Group. The Flashlight Program attempts to detect and evaluate the educational consequences of technology investment. It comprises a number of toolkits (Flashlight Online, Current Student Inventory, Faculty Inventory and a Cost Analysis Workbook).</p>
Learning Organisation	<p>A learning organisation enables each of its members to learn continually and helps in generating new ideas and thinking. By this process, organisations continually learn from their own experience and that of others and adapt themselves so as to improve the chances of achieving their goal (Baets and Venugopal, 1998: 196)</p>
Learning Technology	<p>The application of technology for the enhancement of teaching, learning and assessment. Learning technology</p>

	includes computer-based learning and multimedia materials and the use of networks and communications systems to support learning (Rist and Hewer, 1996).
Managed Learning Environment (MLE)	The whole range of information systems and processes of a college (including its Virtual Learning Environment if it has one) that contribute directly or indirectly to learning and the management of that learning (JISC MLE Steering Group, cited in Everett, 2001).
Networked Learning	Learning in which ICT are used to promote 'connections': between one learner and other learners, between learners and tutors, between a learning community and its learning resources (Centre for Studies in Advanced Learning Technology, 2001).
Open Learning	Learning based on independent study or initiative rather than on formal classroom practice (<i>New Oxford Dictionary</i>).
Teaching, Learning and Technology Centers (TLTC)	The TLT Group have put forward a modification or addendum to TLTRs. Local [Virtual] Teaching, Learning and Technology Centers ([V]TLTCs) are deemed to remain "true to the collaborative, participatory principles of the TLTRs" (Gilbert, 2001a). It has been envisaged that they are, "An online supplement (website) for a <i>single institution's</i> TLTR... serving as a mechanism to extend the accessibility of and co-ordinate faculty and student support services" (Gilbert, 2000f). In other words, the (V)TLTCs appear to be similar to a number of units already established in a number of UK HEIs, in particular, that are dedicated to providing teaching and learning resources. There were signs that a number of institutions with TLTRs were beginning to develop a "TLTC structure" (Central Virginia Community College, 1999) and establish a meeting centre "where technology demonstrations could be staged to show new hardware and software" (<i>ibid.</i>).

Teaching, Learning and Technology Roundtables (TLTR)

In its broadest sense a TLTR is a diverse group representing those who can and should work together to improve teaching and learning with information and communication technologies.

TLT Group

The TLT Group began as the Technology Projects of the American Association for Higher Education (TPAAHE) in November 1994. It was formally recognised as the TLT Group in January 1998. Affiliated to the American Association for Higher Education (AAHE), the Group describe themselves as a “non-profit making body” and that their mission is “to motivate and enable institutions and individuals to improve teaching and learning with technology). Their supplementary mission is to enable institutions and individuals cope with continual change, positing that ICT has created the stimulus for accelerating change and increased confusion to those at the vanguard of teaching and learning with ICT.

Virtual Learning Environment (VLE)

The components in which learners and tutors participate in online interactions of various kinds, including online learning (JISC MLE Steering Group, cited in Everett, 2001). Or, as Barajas and Owen (2000) explain, VLEs are online domains that permit synchronous, collaborative interaction among teachers and learners, while also providing asynchronous learning resources for individual use by students at any time.

Appendix A: The Telematics in Research Group

Telematics in Education Research Group

Based in the School of Computing and Management Sciences, TERG is internationally recognised as one of the most dynamic research groups in technology and learning in the UK. The group was established by Professor Paul Bacsich in 1997 shortly after his arrival from the Open University. It is a vibrant mix of education researchers, social scientists, costing experts and computer scientists, with a proven track record in delivering both qualitative and quantitative research on the social impact of information and communication technology (ICT). TERG's research methodology is an iterative implementation lifecycle covering research into input costs, into the management of change and into evaluation of outputs.

At the heart of TERG is a strategy of providing education and training providers with the best evidence base upon which to improve the integration of new technologies into teaching and learning. By undertaking this type of research SHU endeavours to contribute to the understanding and development of the education process both in the UK and abroad. TERG are engaged in multiple projects of varying scale. Recent TERG projects include:

- *NLNe* – an evaluation of the National Learning Network (Phase 1) – Phase 2 has just been approved;
- *SYeLPe* – an evaluation of the impact of the South Yorkshire e-Learning Programme an assessment of the impact of ILT on five schools in South Yorkshire;
- *ITALIC* – a large-scale survey into the technical readiness of Adult and Community Learning Centres;
- *The Costs of Network Learning* – several studies of applied costing methodologies in e-learning;
- *Changing Technological Management* – an investigation into the effectiveness of change management methodologies for educational organisations trying to embark upon e-learning;
- *REMIT* - a project established to construct and evaluate a large-scale wireless technology multi-media test bed.
- *eUniversity* – assistance with the specification and consultation process for the Learning Management System for UK eUniversities.

Appendix B: The TLT Group

Contact Details for The TLT Group

Address

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Phone

001-202-293-6440

Fax

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Web Page

www.tltgroup.org

Appendix C: Teaching & Learning - Technological Management Survey

Teaching & Learning - Technological Management Survey

Dear Colleague,

We hope you will be able to assist us in a 'ground clearing' exercise that forms part of a research project that is funded by the Joint Information Systems Committee (JISC). We would like to know whether you have an institutional committee for making decisions about the use of technology in teaching and learning. We would also like to gather further information relating to timescale, membership, how often the committee meets and its primary motive.

The attached survey should take no longer than three minutes to complete.

Respondents are advised that the data will be treated with the strictest confidence.

1. Name of your institution
2. Do you have an institutional committee for making decisions about the use of technology in teaching and learning?

YES NO

[If answer is 'YES' to Question 2]

3. If you have an institutional committee for making decisions about the use of technology in teaching and learning, when was it established?

THIS YEAR
LAST YEAR
2 YEARS AGO
3 YEARS AGO
4 YEARS AGO
5 (+) YEARS AGO

4. How often does it meet?

WEEKLY
FORTNIGHTLY
MONTHLY
BI-MONTHLY
TERMLY
BI-ANNUALLY
ANNUALLY
OTHER

5. Who is involved? (Tick all that apply)

PRO-VICE CHANCELLOR/PRINCIPAL
ADMINISTRATIVE OFFICERS
ACADEMICS WITH A PRIMARILY ADMINISTRATIVE ROLE
ACADEMICS WITH TEACHING AS A PRIMARY ROLE
COMPUTING STAFF/TECHNICIANS
STUDENT REPRESENTATIVES
OTHERS

6. What was the primary reason for the committee's establishment?

7. Finally, we would like to follow up your observations with a very short telephone interview. Would you, or a colleague, be willing to take part in such an exercise? If so, please leave your/your colleague's details below.

NAME
JOB TITLE
TELEPHONE
E-MAIL

Do you have any additional comments?

Thank you for your time

[If answer is 'NO' to Question 2]

3. Do you plan to have an institutional committee for making decisions about the use of technology in teaching and learning?

YES NO

If 'YES' go to Question 4. If 'NO' go to Question

4. When will this be established?

5. Who will sit on the committee? Please go to Question 7

6. If you do not plan to have an institutional committee, why not?

7. Finally, we would like to follow up your observations with a very short telephone interview. Would you, or a colleague, be willing to take part in such an exercise? If so, please leave your/your colleague's details below.

NAME
JOB TITLE
TELEPHONE
E-MAIL