LTSN Generic Centre

Change Thinking, Change Practices

A guide to change for Heads of Department, Programme Leaders and other change agents in Higher Education

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ltsn generic centre
Learning and Teaching Support Network

Preface

Change Thinking, Change Practices is part of a series of resources produced to support those promoting and embedding good practices in higher education. It focuses particularly on the roles of heads of department and programme leaders. Papers on related themes are:

- Dissemination: a change theory approach by Professor Lewis Elton
- The Evolution of Strategies for Educational Change: the implications for Higher Education by Professor David Hopkins
- Guide to Innovation in Learning and Teaching by Professor Andrew Hannan and Professor Harold Silver.

These three papers and this guide are available to download in electronic format from the Resources section of the LTSN Generic Centre website (www.ltsn.ac.uk/genericcentre). The first section of this guide provides a concise summary of the above papers too.

This guide seeks to strike a balance between research-informed discussion and practical advice. The authors draw on research literature to identify six key dimensions to understanding change and illustrate these with six case studies. They conclude by providing a number of guiding maxims to help readers develop their thinking about change.

I hope you will find the guide useful in your work and welcome any feedback and suggestions you may have.

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Contents

Executive Summary

This guide is aimed at Heads of Department, Programme Leaders and those individuals responsible for changes in practices, attitudes and values in their institution. Such individuals usually work from the middle-out (working both top-down and bottom-up). They tend to occupy strategic locations in terms of change. Pro-Vice Chancellors and other senior staff in higher education institutions will also find much of relevance to them in their thinking about and practising of change not least in working with Heads of Departments.

Changing practices and changing thinking are inextricably linked: new practices bring new thinking and vice versa. Changes in both can bring unintended consequences and so it is important that actions designed to bring about change are well thought-through rather than based only on common sense.

A key proposition underpinning the paper is that change involves change: that initial plans and visions themselves change as they are implemented and adopted. Rational, linear understandings of change, often seen as 'common sense', have only limited usability.

This guide draws on a range of literature and on six case studies to develop a set of themes from which those working on change from the middle-out can draw. Six dimensions are proposed as being especially relevant in understanding change better: the level of change; the foci of change; the sources of change, control and power; the processes of change; strategic change management; and the impact and evaluation of change.

The final part of this guide sets out a number of axioms about change intended to guide readers away from common errors in change practices, towards better practices and towards effective thinking about making change happen successfully. The guide begins with a summary of the key suggestions as they apply to Heads of Department.

Key Points

The premise of this guide is that those who work as Heads of Department, Programme Leaders and Deans are pivotal in the enhancement of learning, teaching, assessment and curriculum (LTAC). Virtually all of them sponsor change and this guide seeks to provide access to the long tradition of empirical work on change in organisations. We review some of the ideas from this research, illustrate them and highlight some handy maxims that can help those who work from the middle-out to draw on evidence-informed perspectives about change processes and products.

1.1 Suggestions

This list complements the headline points in Section 4. It is important for change agents to:

1. Be aware of what is known about how change happens. This helps leaders lay good plans for stimulating change, and see ways of managing wayward change processes.
2. Recognise that some changes, often top-down and centre-periphery changes, have to be 'implemented' quickly. However, pervasive change takes time. Be willing to think long term and slow.
3. Appreciate that good structures help leaders to process change mandates but the cultures that mark out 'learning departments' help people to grow their own changes continuously.
4. Bear in mind that departments are going to be expected to respond to policy priorities in quality enhancement, employability, quality assurance practices, widening participation and e-learning. Far-sighted leaders are considering how they can respond to these priorities and preserve their academic values and continue to improve LTAC.

Section 1. Change Thinking

… educational policymakers have not learned anything from these decades of research, whose recurring theme has been the complexity (if not outright failure) of educational change and the inadequacy of so many reform ideas … we have so little evidence that anyone has learned anything new about the processes of teaching and schooling beyond the confines of their own personal locations.

Bascia and Hargreaves, 2000: 20

The Learning and Teaching Support Network (LTSN)[1] is an ambitious and systematic approach to change, in this case to enhancing the quality of learning, teaching, assessment and curriculum (LTAC) in higher education. It scans and synthesises practice, research and theory in order to help subject departments, programme teams, educational development units and other change agents to engage with best thinking and practice.

The LTSN was established to enhance LTAC. Policy-makers in Wales, Scotland, Northern Ireland and England want these quality enhancements to contribute to widening participation, e-learning and graduate employability. So there may be value in spreading the message about best practice in the assessment of student learning but it is better to construct assessment practices that, for example, contribute to student employability and support the 'new' students recruited in the widening participation initiative. This is hard. Good ideas are not enough. Good change thinking is needed too.

We know a great deal about change, although a lot of what we know concentrates upon why change doesn't work, showing that failure is endemic to attempts to deliver faithfully planned changes. Yet even that rather deconstructive literature (summary: change intentions get changed in the process of change) is helpful if it steers us away from the management trap of assuming that when the reality of implementation turns out to look different from plans, then this is a failing that is attributable to a lack of capacity, competence or commitment. Of course, good changes need capacity, especially resources and spaces, competence and commitment. But when the implemented changes look different from the plans, as they usually do, there are alternatives to attributing the 'implementation gap'[2] to lackadaisical teachers, to scant knowledge of pedagogical theory or to the pressure to publish.

This guide reflects the view that departments and programme teams are the key organisational units when it comes to change[3]. Agreed, we still need to consider individuals (which the Institute for learning and Teaching in Higher Education (ILTHE), for example, does) and there is substantial literature on the importance of whole-institution change management. Bottom-up and top-down approaches are important. But change from the departmental level is as important, perhaps more so. The

[1] The Learning and Teaching Support Network (LTSN) is a network of 24 subject centres which support LTAC in the academic disciplines; the LTSN Generic Centre, which brokers good thinking and practice about LTAC in general; and an Executive, which manages the network.

[2] See Trowler and Knight, 2001, for more on the implementation gap.

[3] Two of us have developed this idea at length. See Knight and Trowler, 2001,

American Association for Higher Education (AAHE) found as much when trying to respond to concerns about evaluating and rewarding teaching. It was

> *surprised to find that the group they had expected to be the most recalcitrant to their ideas – academic administrators – was in fact the most eager to embrace them … What resistance there is lies at the discipline and departmental level, which most faculty consider to be their professional "home".*

1.2 LTSN Generic Centre resources

The LTSN Generic Centre commissioned three expert views of educational change:

a. *Dissemination: a change theory approach* by Professor Lewis Elton

b. *The Evolution of Strategies for Educational Change – the implications for higher education* by Professor David Hopkins

c. *Guide to Innovation in Learning and Teaching* by Professor Andrew Hannan and Professor Harold Silver

We will summarise each before concentrating on effecting change from the middle-out.

a. Professor Elton argues that problems disseminating teaching evaluations can, in part, be traced back to underlying assumptions about change. He suggests that the 1990s Enterprise in Higher Education initiative (EHE) found change strategies that challenge these assumptions and which had some significant success. He argues that power, whether in the form of inducements of one sort or another, or in the form of managerialism and accountability systems, is needed to 'unfreeze' entrenched and indifferent practices. Then, 'even if the innovation comes originally from the top, it may be wise to keep that fact a secret' so that 'ownership of the reform which initially is likely to be confined to a few, must become widespread'. This message, that innovators should think bottom-up and top-down, is complemented by a recommendation that innovators work with the grain of subject communities and recognise the 'inherent complexity of the systems that are to be changed … [which] adds a probabilistic element to any predictions of the future…'. He concludes with the remark that there might be a case for appointing higher education advisers to help innovation processes. We shall return to these ideas – the need for power, the importance of disciplines and departments, the importance of bottom-up work, the need for access to real expertise about change, and the uncertainty factor.

b. Professor Hopkins summarises an enormous amount of work on school improvement, an area that is better researched than almost any HE LTAC topic has been. In a survey of experience of school improvement in the second half of the twentieth century he highlights implications for managing change in HE. Notice the view that change can be managed, which seems to challenge Elton's remarks about uncertain outcomes and his own later endorsement of Fullan's work[4],

[4] The best introduction to these influential ideas is Fullan's Change Forces: the sequel (1999). Its companions are C*hange Forces* (1993) and the 2001 edition of *The New Meaning of Educational Change.* Forthcoming is *Change Forces with a Vengeance* (2002).

which includes the remark that 'You can't mandate what matters. (The more complex the change the less you can force it)'. This is not a dilemma to ignore because innovators have to decide whether to try and manage the change or whether to set up processes and incentives to encourage colleagues to work more or less in the intended direction: product management or process support. We illustrate this here with Figure 1, which is intended to show that five headline views of change imply very different practices. (There are other theories of change which we have excluded for simplicity's sake. Land (2001) surveys some of them, and Blackwell and Preece (2001) offer an alternative review.) The sharpest differences are between some versions of change management thinking (theory 1) and complexity stances (theory 5). It might be said that many innovators do not consciously use any particular theory of change and often take ideas from different theories. In a sense this is our point. The more that what they do is theory-and-evidence informed, the better. Haphazard approaches to change are likely to be frustrating, partly because they do not prepare innovators for the experience of the implementation gap.

Sometimes change has to be managed (theory 1) but even the best management seldom delivers complex, educational changes as per specification. So, departments may be attracted to change theory 5 (stimulating change processes), recognising that

> "Incremental innovation is the main part of innovation in industry. … Who produces innovation? Every worker"
>
> Paul, 2002.

Figure 1: Some implications of five common views of change

Change theory ▶ / ▼ Ramifications	1. Technical-rational	2. Resource allocation	3. Diffusionist: epidemiological	4. Kai Zen or continuous quality improvement	5. Models using complexity
What are the core assumptions about the nature of change and its objects?	Positivism works: experts plan and then manage faithful implementation	Rational economic model: assume that central resource decisions have predictable results	Normative re-educative: clear, visible messages picked up by early adopters? they diffuse according to the fit of message with audience priorities	Bricolage: change is because the system gets people to be continuously tinkering, looking for ways of doing better	Indeterminate systems here outcomes are not predictable. Change sponsors thus create conditions in which change of a certain sort is more likely to happen than not
How easy is change assumed to be?	Change is a matter of good engineering. Well-designed interventions cause change	Anything seems to change if the incentives are right	Systems resist change, but some elements change quickly. Others may follow the example, especially if pressure is applied	Small-scale change is always happening but the worker, not some planner, chooses what to change, when and how.	Systems change but seldom as planned and as predicted
What sort of metaphors are used?	Engineering	Economics	Communication theory & epidemiology	Bricolage or artisanal	Quantum physics, Taoism and holistic / mystic discourses
How does power flow in the system?	Centre-periphery and/or top down power flows. Good systems are tight-coupled although many become loose	Economic model – resource currents create vortices in power flows: the market works!	Pioneering projects become beacons of influence	Power flows through as many capillaries as possible: bottom-up change is valued	No locus. Power is. The system is not directly controllable but it should be open to indirect influence
What change methods are typical?	Managerialist: power-coercive. Some normative re-educative – reasoned argument	Incentives, sanctions and accountability for quality. The resource model may evoke bottom-up change	Dissemination, publicity, awareness-raising. League of luminary pedagogues, 'compendia of good practice'	Tinkering. Planned innovations get people to explore ways of solving central problems	Fundamental change is the outcome of multiple small changes thus provide suitable conditions and trust change will come
What conditions make for successful change?	Quality of the innovation; sufficient resources, good monitoring	Allocations sufficient to produce desired behaviour	Effective informational and training strategies	Empowerment of everyone in the system	More than sufficient affordances – an over-optimal supply of tools and other help
Who are the change champions?	Powerful change agent, probably a key member of the hierarchy	Central resource allocators	Trainer, early adopter (enthusiast)	Groups – communities of practice - should be their own change champions	Organic intellectual, skilled in praxis and in creating affordances

Unfortunately, the results are uncertain and often slow. By itself this is not a secure strategy for departments that want to improve LTAC in ways that align with policy pressures to widen participation, make more use of e-learning and enhance student employability.

An added complication is that change is not a homogenous process. What needs to be done to get change started is often different from what needs to be done to maintain it: the difference between planning and implementation can be greater still. Rather than buy a 'one-size-fits-all' theory of change, we encourage change agents to appreciate the variety, and then use ideas from the column that seems to offer most to the stage and site.

We do not have the space to summarise Hopkins' extensive advice, which is more about change in higher education in general than it is about department-level change. However, we draw attention to the six conditions that he judges to underpin successful school improvement work. We think they apply just as well to departmental innovations. They are:

1. A commitment to staff development
2. Practical efforts to ensure the involvement of staff, students and the community in school policies and decisions
3. 'Instructional' leadership approaches
4. Effective co-ordination strategies
5. Attention to the potential benefits of enquiry and reflection
6. A commitment to collaborative planning

Six conditions of change from Hopkins, D. (2001)

This implies a view of change that is closer to theories 4 and 5 than to theory 1, an approach that is about developing the capacity for innovation in workgroups (sometimes called communities of practice). How, though, is this to be reconciled with policy-makers' concern that departments engage with changes of a certain sort? Hopkins suggests that successful schools survey the range of initiatives confronting them (widening participation, e-learning, employability, for example) and take up those that fit best with the priorities in ways that make sense to them in their own local circumstances. In other words, building change capacity by concentrating on the six conditions is consistent with national and regional priorities because the capacity should be used on at least a selection of the priorities. Hopkins' School Improvement for Real (2001) is an extended treatment of ideas that are compressed in his LTSN Generic Centre guide.

c. Similarly, Professors Hannan and Silver's paper compresses their work in Innovating in Higher Education (2000). A point that stands out in it is that change is contingent, by which we mean that what happens is shaped by the circumstances of the department or programme team (they are clear that 'Initiatives to improve teaching and learning that were located in a department … were more likely to succeed' So,

> "Innovations were greatly influenced by local circumstances with regard to students, courses, institutional and departmental pressures, as well as by specific disciplinary and professional cultures … Innovators emphasised the importance of the attitude and support (or otherwise) of colleagues, senior managers …"

We understand this to reinforce the idea that a dual approach to innovation is needed: concentrate on building capacity and encourage departments and teams to deploy that capacity on policy priorities. This exemplifies working from the middle-out, because it is capacity in the middle – at department and team levels – that is being created. The capacity then reaches out and draws in policy priorities with which the department or team then engages. Innovation comes from the engagement and the capacity.

Hannan and Silver remark that, 'It was difficult to demonstrate the success of innovations'. This evaluation problem can be attributed to the variety that contingencies introduce and also to measurement problems which are in some cases simply insoluble.

They also remark on the difficulty of sustaining innovations, which leads us to remark that the chances of sustaining change seem to be better when it is 'home grown' in a team or department that has the change-friendly cultures captured in Hopkins'; six conditions favouring change.

In summarising these three briefing papers we have been developing a distinction between promoting an innovation – wider participation, e-learning and employability – and developing local capacity for innovation. The latter lies close to change theories 4 and 5 and is being presented as a precondition of good engagements with specific changes. Policy-makers, though, want to see action on their agenda and are likely to favour theories 1 or 2. In so far as they are useful for capturing the attention of change-friendly departments, theories 1 and 2 have their place. The management trap is to believe that they are sufficient. Just beyond it is another trap, that of believing that the innovation, as it will be created in thousands of departments, will simulate policy-makers' plans.

Before closing this account we want to extend it a little by referring to two other papers.

1.3 Change cultures and change communities

McLaughlin (1999) asks how promising innovations can be spread through the (school) system. She argues that,

> Lacking knowledge of first principles [of an innovation], teachers also risk constructing "lethal mutations" in their classrooms, as they modify practice or extend it and unintentionally violate rudiments of the reform's theoretical base.

This is a principle that is carried through in the Skills *plus* project (see section 3.2, below), which also picked up McLaughlin's insistence that teachers need to have tools that embody the new thinking – what she calls 'the procedural knowledge of project theory'. This principle that change should have a good basis in theory resembles the view that knowledge management is a powerful engine of change (see, for example, Nonaka and Takauchi, 1995; Davenport and Prusak, 1998). This is, of course, one of the functions of the LTSN in UK higher education, to broker knowledge of policy, evidence and theory in order to

help higher education enhance LTAC. Here we want to note that the description of good knowledge management practices that is in Figure 2 looks very much like a description of good team working practices. This returns us to the claim that promoting widespread innovation entails fostering the cultures and structures that will increase capacity to innovate and respond creatively to external change forces.

Figure 2: Knowledge creation practices in the ten leading Japanese companies

1. Avoid dependence on document-only communication and try to have face-to-face communication when introducing a new idea.
2. Prioritise, especially when it comes to implementation strategies.
3. Use knowledge acquired from friends and books.
4. Prepare proposals, reports, marketing materials etc.
5. Formulate a new idea socially – through interactions and discussions.
6. Formulate a new idea through individual contemplation or reflection.
7 Interact with others in order to discover needs and problems.
8. Use the past to help identify new ideas.
9 Teach know-how to others by working with them.
10. Build a knowledge archive of processes and practices that have solved problems or generated new ideas. Use it.

(Based on notes of the OECD high-level forum Knowledge Management: learning by comparing experiences from private firms and public organisations, Stockholm, 8-9 February, P.16)

Figure 3: Individual responses to externally-driven change

	The innovation is felt to be good	The innovation is not felt to be good
Belief in own capacity to make this change and that there are sufficient affordances for success	Adoption	Resistance or inertia
Belief in own capacity to but no belief that there are sufficient affordances	Acceptance	
Resistance or inertia, belief that there are sufficient affordances but not in own capacity		
No belief in own capacity, nor that there are sufficient affordances	Inertia	

This takes us to our last introductory theme, which is to do with the quality of the social groups in which people work – they are often called communities of practice, sometimes called workgroups and occasionally called activity systems. We are agnostic on terminology and sceptical about rosy views of communities of practice, while being committed to the idea that the group exerts a considerable influence on what people will risk and can achieve. Consider Figure 3, which represents four possible responses to an innovation. It suggests that the ways people respond to innovations are related to their beliefs. Beliefs can be changed, especially where communities have enough capacity to feel confident in their ability to engage with an innovation - widening participation, e-learning or employability - on their own terms and for their own purposes. Workgroups also can venture more because, seen as systems, they contain more expertise, resources, intellectual and social capital than any individual member does. On this view, what matters is helping teams and those who lead them to become confident that they can tackle changes. That will involve building:

- Intellectual capital (knowledge of principles and evidence)
- Social capital (connections with others engaged in similar tasks)
- 'Tools', procedures or techniques
- Expectations and other kinds of informal and formal rules
- Group working practices, notably understandings about who does what.

Section 1 Summary

1. Common sense thinking about change is fit for some purposes but can be very limiting. Different approaches are needed depending on purpose, audience and setting. This section summarises five views of how change happens (Figure 1) and details how we prefer a social practice theory of change. We will say more about it in the course of this guide.
2. Change agents, such as Programme Leaders, Heads of Departments and Deans need to engage their colleagues with specific initiatives that force themselves upon higher education. However, coercion, resource allocation and clever marketing may have their place but they are limited.
3. Changes get changed as they are adopted and adapted: implementation changes plans.
4. Change agents can be most effective when engaging with groups that are growing the cultures and structures that allow them to change and to preserve their sense of identity.

Six of the themes implied by this analysis are developed in section 2.

Section 2. Themes and Tools

This section has six sub-sections. Each takes a theme or concept and: sets out the common-sense view; shows that there are disagreements attaching to it; indicates ways of seeing it that are likely to help subject centres, heads of department and team leaders; and, where possible, provides some tools to help them.

2.1 Levels of change

The maxim that all curriculum change is teacher change (Stenhouse, 1975) applies strongly in HE where the concept of academic freedom has been used to justify teachers following their own bent in their modules. Another common idea is that change is institutional change. This has never fitted higher education institutions too comfortably because they have been loosely coupled organisations which accommodate diversity. Nevertheless, initiatives such as the HEFCE's distribution of funds to HEIs on the basis of their institutional teaching and learning strategies show the appeal of this institution-focused view of change and most books on change in higher education treat the institution as the unit of analysis.

An alternative is implied in the remark that a university is a collection of departments joined by a central heating system: the department, team, workgroup, activity system or community of practice is seen as the basic unit of change. Even in the school sector, where twenty years have been spent on school effectiveness, there is evidence that in high schools the departmental effect is more important. Social scientists have shown the distinctiveness of each workgroup or community of practice in a variety of organisations and we reach similar conclusions about higher education. The very existence of LTSN Subject Centres implies a belief that change can be stimulated by engaging subject communities.

When commenting on Figure 1, we remarked that individual beliefs about innovations are partly social, shared beliefs. An implication is that individuals can be reached through departments, although educational developers have an alternative tradition of recruiting individual volunteers to their workshops. The obvious advantage of working with departments is that developments touch everyone, especially where they are embedded in inescapable routines (see case 3.3 below). Traditional educational development gets the volunteers, who then face enormous problems trying to 'sell' their message to their colleagues.

In 2002, the LTSN Engineering Subject Centre organised a summer workshop for two senior teachers from each of seventeen engineering departments. Its five day (1+3+1) format allowed for sustained engagement with the development of programme specifications and the companion assessment arrangements that would systematically promote complex learning. Although expensive and intensive, this was an authentic problem-working process that addressed issues of shared concern to heads of engineering departments. They had expert help to hand in the workshop and left with well-conceived, tested plans that brought best

thinking to bear on problems they had to resolve.

Heads of department might take a similar approach, stimulating departmental action on a major policy issue and calling upon their educational development unit or LTSN Subject Centre to provide the expert advice on design, delivery and assessment issues.

2.2 Change foci

The last section suggested focusing on big problems and developing working solutions that are tried and then evaluated and revised. The emphasis was on changing practices and developing new tools, not on making it a priority to change beliefs.

A common counter-view is that change begins with a challenge to beliefs that are incompatible with the intended innovation. This makes sense, especially if we accept that much of what we do is based upon tacit beliefs, ones that we may recognise if we are prompted but which normally lurk beneath the surface, affecting what we do without our being aware of it. Mike Prosser and Keith Trigwell have done much work connecting teachers' (often tacit) beliefs about learning, teaching and students to their pedagogic practices (see their 1999 book, for example). Changing beliefs then appears to be a precondition for innovation, a view which is shown as the third change strategy in Figure 1. An enormous amount of effort goes into belief change, especially by setting out the case for preferring the innovation to existing practices.

There is no doubt that this is a useful strategy and an ethical one, in the sense that people have a right to hear the good sense behind things they are being asked to take on. We also know from research into motivation that extrinsic motivation can become intrinsic when the thinking behind the innovation is explained and can come to be seen as reasonable (Brophy, 1999). This needs a little explaining.

Extrinsic motivation is basically 'carrots-and-sticks' motivation, where we do things because of the rewards or punishments attaching to them. It is necessary and useful but limited. It can be costly, because surveillance, appraisal and reward systems need to be put in place; it assumes that you can tightly specify in advance the behaviours to be rewarded or punished; and it assumes that you can measure those behaviours accurately and fairly enough to match the rewards or punishments to them. It does not work too well when the aim is to stimulate professional behaviour, characterised by initiative, creativity and non-routine decision-making. However, new practices which are initially driven by extrinsic factors can become integrated or introjected, which is to say that people can come to value them for themselves. This is close to intrinsic motivation, where things are done mainly for their own sake. These themes are developed further in the next two sections.

So, there is a need for change agents to explain clearly, repeatedly and in many ways why the change is beneficial. In that sense they need to focus on beliefs. Two significant limits to this focus are that: we

may need to affect networks of beliefs, going right back to root beliefs about learning, teaching and education; and changing beliefs is not sufficient to change practice because people need tools to support them in the practical business of change.

We suggest tool making as an alternative focus, which echoes McLaughlin's thinking. Work with colleagues on big issues, such as the design of a programme specification to enhance student employability, and create with them 'tools' that embody the innovation in useful ways. The reasoning behind the tools needs to be explained, as in the Skills plus project (section 3.2), but explanations need to be exemplified in tools, rules, demonstrations and materials that colleagues can use (see section 3.3).

This implies a substantial change of emphasis in many educational development units.

2.3 Sources of change, control and power

The common-sense view of the source of control and power in change processes is that it lies with managers at various levels in higher education institutions and, above them, with government and other agencies in the system. This is because:

- They set the agenda for policy and change
- They formulate the broad character of change, and sometimes the details
- They liaise with other powerful people
- They control resources
- They set targets, and measure their achievement
- They allocate responsibility, and define success or failure
- They offer rewards and sanctions as they see appropriate
- They have levers to pull which change practices, values and attitudes on the ground — by selecting people, influencing the way issues are discussed and rewarding some people and practices over others.

Such a centre-periphery model is often associated with a resource-dependency model of change (see Figure 1, column 3). Together they assume that:

- Change comes from the top
- Those on the ground are largely driven by the search for resources
- Successful change results from tight coupling of management decisions and ground-level action.

Clearly there are merits in this position. Each of the assertions in the first list of bullet points is true, at least to some extent. However, reality is rather messier than this. An alternative perspective suggests a different view of power and control.

- Policies about change are usually the result of conflict, bargaining, alternative (even competing) understandings and compromise, even at the top of institutions or government — they are rarely simple and unambiguous. Rather they tend to be fuzzy and capable of alternative readings. This is often a good thing because it allows for local adaptation, which is necessary.
- Those on the ground level always have room for manoeuvre — have discretion — even when change policies are very tightly

defined and in a tightly-coupled managerial context. Universities are (still) loosely coupled organizations.

- Mechanisms for allocating responsibility, getting and using feedback about achievement of targets and giving rewards or sanctions are complex, messy and subject to constraints and influences that reduce managers' and policy-makers' power.
- Where change is imposed through managerial fiat there is unlikely to be real change in values, attitudes or practices in the long term. Real change is embedded in its context and comes when people make it their own through use and adaptation to local histories and contexts. Power and control at the ground level is a condition of success.
- Local contexts are largely created by the people who operate in them. Back stage and under the stage[5] deals, knowledge, understandings and attitudes have an important impact on change processes. These are largely dissociated from the front-stage processes which the centre-periphery model focuses on.

So, the centre-periphery model could be represented by the metaphor of an archer. S/he chooses the target, takes aim and fires. Whether the outcome is successful or a failure depends only on the chief player - the archer. Power and control resides with him or her; the choices made, skills possessed, steadiness of hand, clarity of vision.

The second model could be described using the metaphor of sailing a yacht in difficult seas. The skipper has the last word, and takes responsibility. But the crew need to be skilled and to take quick decisions. This is particularly so when the going gets really tough. Plans are made, but have to be re-made as conditions change. Decision-making is a moment-by-moment affair, and each one affects the choices available next. As they work together over time the crew and skipper develop particular ways of doing things and often become more effective, but distinctive, in the way they sail. Relationships and practices will be different on board different yachts.

We suggest that the centre-periphery model leads to a management trap because it directs action on lines that do not match reality too closely. The implications of our preferred, social practices model for understanding change are:

- Successful change involves inputs from both 'top' and 'bottom'
- Environmental conditions are important - and they will affect where power and control lie
- The location of power and control over change will also be different in different locations
- There is no one best place for power and control over change to lie — it will depend on time and place but will always be distributed between the 'top', 'middle' and the 'bottom' in changing proportions
- The exertion of brute power from the top of universities (or government agencies) to achieve intended outcomes will fail. More subtle exercise of control is necessary in complex organizations in turbulent environments

[5] Back stage is where deals are done privately, under-the-stage is where gossip is purveyed. Front-stage is the official face of institutuions in public pronouncements etc.

- A subtle understanding of the effective use of power and control requires a nuanced understanding of the history and context of locations in which change is desired. Agency on the ground is usually just as important as control from the top, so a fine-grained knowledge of the ground is necessary.

We shall return to social practice thinking about change in section 2.5.

2.4 Change processes and the evolution of changes

It is useful to see change more as a process than as an event. The problem with the event or 'outcome' approach to change is that it leaves aside the way in which change has taken place, treating it as a 'black box'. The focus for this theme is that change occurs over time and has certain manageable dimensions. The better we understand change processes, the better we can influence them. We illustrate this by briefly describing three principal components of change processes.

Pre-adoption activities

It is possible to view change as a process that begins with an analysis of the 'pre-change situation'. This is often called a 'situational analysis'. The important point is that it analyses the circumstances which prompted the change or which suggested a change may be desirable or needed. It is helpful to identify two dimensions of the 'prompt' for change, namely, the analysis of chronic features and the analysis of conjunctural features of the situation. Chronic features refer to long term worries about particular aspects of professional practice. They could be assessment systems, pedagogic style, relationships with students, using technology. Conjunctural features refer to new circumstances: appointments of key people, a new source of funding, government or institutional policy changes or a crisis of some kind. Whatever the feature, what is important is that it changes a long term concern into an immediate impetus for change and pushes the possibility of change to centre stage. Both elements are usually needed for a change to happen, which is why we have been suggesting that those wanting change should use policy pressures (conjunctive) to stimulate action on chronic features of LTAC.

Adoption

This refers to the process by which the decision to change is made. Adoption is a process rather than a moment in time, and the extent to which decisions to adopt are made in a participative, consultative or hierarchical ways, can radically affect the ways in which practitioners feel committed to the change, rehearse ways in which the change have implications for them and seriously envisage changes in their routine practices.

We know that the way in which a change is adopted can have profound effects on the way in which it might be embedded in the long term. In section 2.3 we identified aspects of the power dimension in the change process overall. In the adoption phase, the exercise of power becomes a critical factor. In other words, the position we take on change adoption is that in order to embed a change in routine practices

among a client group, it is important for them to have a value commitment rather than instrumental compliance to a proposed change. This implies, in turn, a participative approach to making decisions whether to adopt or not, which squares with points made in section 2.2.

While the interactive dimensions of the adoption process are critical, the research on change and innovation suggests that the nature of the proposed change also affects adoption. These features can be summarised under the following headings.

- *Congruence:* changes which build on what is already in place have a much greater chance of adoption than those which imply a complete and unfamiliar shift in routine practices.
- *Complexity:* changes which are presented in a relatively straight-forward way and are accessible or 'recognisable' are more likely to be successfully adopted. (Complex thinking may underlie simple presentations and handy tools, though.)
- *Clarity:* changes which are explicit about who is to do what and when are more likely to be adopted, especially if change sponsors provide useful change tools.

Implementation

This phase of the change process is where the change moves to a change in practices. It is after the decision to adopt that changes often falter. The following principles for change implementation are usually accepted as important.

- Colleagues who will be caught up in implementation must have incentives to change. Incentives might be complex and multi-dimensional and include ethical, material, professional, normative, market or political considerations. It is important to be able to talk authoritatively about what an incentive to change might be for the individuals and groups who are being asked to engage with implementation.
- Changes are modified and adapted by people at different points in the implementation process. In the process of sifting for professional relevance, sorting out gains and losses, thinking of practical implications and applications, minimising damage, maximising opportunity etc, the change in a text becomes a change in practice and potentially quite radically transformed. To repeat a point: the process of change changes changes.
- Changes, particularly interesting or significant changes, take much longer to embed than anticipated. Most colleagues working in HE develop rather 'engrooved' practices which are often closely associated with their work or professional identity, which means that it might be difficult to unfreeze their practices in order to make way for new ones, that resources and support are likely to be necessary, and that the process will take time. Evaluators should therefore use realistic time scales (See also section 2.6.).

2.5 Strategic change management

The predominant, even default, view of change management is one which identifies a number of pre-requisites that must be in place if change is to be effectively introduced and managed. These include:

1. Analysing the context and clients' needs

2. Developing programme objectives
3. Developing a clear series of steps and goals along the way towards full implementation
4. Instructing appropriate change agents in what needs to be done
5. Developing a method of evaluation.

Preconditions, in this view, for successful change include:

- Creating and sustaining the commitment of those involved
- Having clear and stable objectives
- Ensuring the innovation has priority over competing demands
- Ensuring that there are sufficient financial resources
- Creating, as far as possible, a stable environment within which the innovation is being implemented
- Providing good leadership.

Clearly some of these are more within the power of change managers than others, and none is easily affected.

This model, while clear and appealing to common sense, is only one way of seeing and planning change. It is often called the technical-rational approach to change (see figure 1, column 1). The characteristic of a successful change in this model is an outcome that is very close to the original objectives.

However, an alternative model based on a different view of how things really work sees the change process (and therefore change management) quite differently. This model, based on social practice theory, suggests the following.

1. That any innovation will be received, understood and consequently implemented differently in different contexts: the modularisation vignette (3.1) demonstrates how that curricular innovation meant different things to different sorts of people. It might also have been interpreted negatively as simply a cost-cutting exercise.
2. In HE the important contextual differences that affect the reception and implementation of an innovation relate to a) discipline and b) departmental context. Obviously these two factors inter-relate - but departments in the same discipline in different institutions will be different in important ways.
3. The history of particular departments, the identities of those within them and the way they work together are very important in understanding, and managing, how innovations are put into practice.
4. Successful change, like successful learning, is a constructive process - the change is integrated into the heads and hearts of those involved. Like learned 'knowledge', the change is uniquely shaped during this process - which is sometimes referred to as acquiring 'ownership' of change but is actually broader than that (if ownership is understood as the feeling that this innovation is 'ours').
5. If there is congruence between an innovation and the context of its introduction at a particular time, then dissemination will be successful even if some 'pre-requisites' aren't in place. However both the context and innovation will be re-shaped in the process.

The consequences of this position for managers of change are as follows.

6. Don't assume that the way you think of an innovation is the way it will be understood on the ground.
7. Expect different outcomes in different places. Expect differences too in the way an innovation is used in different contexts.
8. Don't expect innovations introduced without sensitivity (to particular histories and contexts) to be successfully disseminated.
9. Expect any innovation to mean there are seen to be winners and losers, and to have implications for the way people work together that are wider than the obvious ones.

Those charged with introducing teaching and learning innovations should follow the recommendations below.

- Allow space in innovations for those on the ground to make them their own - to adapt them to local context and need. Don't offer oven-ready 'solutions', although 'tools' are another matter.
- Don't be obsessed with the expressed 'needs' of the community (they often know more about wants than 'needs'). Instead, find out about histories, contexts, identities and stories about the discipline in different places. When doing this think about the HE system, the institution involved, workgroups on the ground and particular people (or types of people). Think in concrete terms.
- Try to imagine how those on the ground will 'read' an innovation - and think laterally. Think about negative as well as positive readings. Then ask yourself how these can be addressed or re-shaped.
- Ask yourself who might consider themselves to be a loser if this innovation is adopted, and why. Then ask yourself how such concerns could be addressed.
- Try not to think about 'this innovation' but about changing things more broadly in particular contexts - think about the wood as well as the trees, the dance as well as the dancer.
- Remember that existing cultures are extremely tenacious. Inertia is incredibly strong in educational settings. Change in LTAC always involves cultural change – and it's tough. Think small scale, and incremental.

Under the social practice model of change and change management, success is defined as outcomes on the ground, which best serve the needs of both planners and implementers.

2.6 Impact and evaluation

Those of us involved in change or trying to make change happen are interested in whether or not changes have occurred. However, evaluation efforts have particular flavours. For example, we might be evaluating for:

- Accountability (measuring results or efficiency)
- Development (providing evaluative help to strengthen institutions or projects)
- Knowledge (obtaining a deeper understanding in some specific area or policy field).

Any or all of these perspectives might be relevant to an evaluation but each implies different approaches. Evaluation for accountability tends to be summative, numerical and externally driven. Evaluation for development might be much more diverse in its approaches and include a greater emphasis on stakeholder accounts, have diagnostic purchase on change experiences and actions, and be more relevant to strengthening the change process. Evaluation for knowledge is where research and evaluation are integrated and offers the opportunity to pursue evaluative research on teaching and learning via the evaluation of a change process. Much of the work in the EU SOCRATES funded project is of that kind.

We, distinctively, see evaluation as a contributor to change processes — as a form of brokerage (Knight, 2003). In this case there are three key things for evaluators to consider: planning the evaluation; orienting; and focusing which we consider in turn below.

Planning the evaluation

The evaluation plan can be built with the help of tools like RUFDATA (Saunders, 2000). This tool directs attention to seven questions:

1. Reasons and purposes (Why evaluate?)
2. Uses (What use will it have?)
3. Focus (What will it collect evidence on?)
4. Data and evidence (What kind of evidence will it use?)
5. Audience (Who is it for?)
6. Timing (When will it take place?)
7. Agency (Who will do it?).

We have found that this approach has the following advantages:

- It does not require specific evaluation expertise: the categories are accessible
- It can be done relatively quickly
- It can be very inclusive (that is to say that it can draw in a wide group of stakeholders)
- The RUFDATA processes should come at the beginning of an evaluation, so contributing to the basic plan.

The answers to the RUFDATA questions determine the ‘character’ of the evaluation, although they do not fix the methods that the evaluators will use.

Orienting

Orienting the evaluation refers to thinking about the broad shape the evaluation might have. It involves working through a whole range of ‘why?’ questions about what people are doing and the ‘tacit theories’ that underlie them. Carol Weiss (1995) suggests that all programmes for change have underlying ‘theories of change’ that have influenced decisions around design. Essentially this notion of theory is theory with a small ‘t’. It refers to the ideas or underlying/tacit assumptions about how an activity is supposed to bring about the hoped-for changes. Where an activity is not clearly specified or linked to the ultimate goals of the intervention, part of the evaluations’ task is to clarify the premises, assumptions, hypotheses or theories that have guided decisions about the overall structure and specific components of the initiative. Once these have been elicited, they can drive the development of an evaluation design that tests whether the theories hold up when the activity is implemented - whether there is a good fit between what people do, what they are trying to achieve and their underlying theories of how to get from here to there.

Focusing

This is about identifying the aspects of change about which data will be gathered. Logically, this is addressed as part of a RUFDATA exercise but essentially it should be more selective and coincide with what is felt to be important. In line with the approach generally recommended here, collaboratively generated indicators of success, performance or quality are considered the most powerful tool.

The EPO [Enabling, Process and Outcome] methodology distinguishes between three types of evaluation indicator (Helsby and Saunders, 1993).

Enabling indicators are concerned with the structures and support which need to be set up or provided to support the desired processes to take place. Evaluators may appraise such things as the establishment of an institutional, departmental or group policy, appointment of coordinators or working parties, allocation of funds/resources, timetable changes, or the provision of professional development.

Process indicators are concerned with what needs to happen within the target groups practice in order to embody or achieve desired outcomes. In our view, evaluators' main focus would usually be on the fitness for purpose of the teaching and learning practices in departments.

Outcome indicators are concerned with the intermediate or longer term outcomes of activities and are tied to impact goals. Since HE is ultimately about effecting positive changes in student behaviour, the most critical outcome indicators tend to refer to student-based outcomes. Given the intractable problems with trying to measure some kinds of outcomes directly, it is perfectly possible to identify intermediate outcomes which refer to shifts in departmental or subject cultures/teaching styles which could be attributed to a change strategy.

Central to the EPO approach is the development of indicators which key stakeholders 'own' or identify as useful, fair and diagnostic. As in the case of the theories of change approaches, there is a collaborative ethos associated with their generation. They are normally the product of a process of design and discussion between evaluators and activity designers.

Our suggestion is that good evaluations and, by extension, good evaluators with sufficient resources, can contribute a lot to change processes.

Section 2 Summary

1. Social practice theories have been commended for their analysis of change processes.
2. Departments and teams have been taken as the natural units of analysis when thinking about change.
3. While it is common to try and change people's thinking, we see a lot of value in using tools and expertise to change practices: beliefs can follow.
4. Formative evaluation has been commended, when evaluators aim to add value to the change processes.

Section 3. Examples of Change

This section contains seven examples of change in education. They are designed to put flesh on some of the ideas we have been laying out in the two previous sections. The first example is about schools in India. Although you might wonder about its relevance, we have included it because we believe there is a lot to be learned by looking elsewhere, especially to schools, where a great deal of sophisticated research already informs policy and practice around the world. Readers may wish to reflect on the relevance of this sketch to examples of national and local initiatives in the UK which they know about.

Operation Blackboard, India: the limits of centre-periphery change

The Indian government's National Policy on Education (1986) identified three problems with primary education: alienation of the child; unsuitability of the formal structure of schooling for working children; bareness of the school facilities. Operation Blackboard was the government's response. It: promoted a child-centred approach to base learning; launched a comprehensive system of non-formal education; aimed at a substantial improvement in school facilities. Buildings would be extended, existing teachers trained in the new child-centred approaches to learning and the use of Operation Blackboard materials, new teachers employed, new methods and teaching and learning aids supplied and used. State governments had to submit plans and part-fund the project with national government. The plan was for the scheme to be fully operational within four years of inception (1990).

By 1992 there was only evidence of limited and patchy response: there were numerous and varied 'implementation gaps'. Building work had not been done, though foundations had sometimes been laid. In rural areas the plans for building extension under Operation Blackboard rooming norms were unnecessary – to build according to the plan would have been a waste of resources. New teachers had not been employed, materials remained unused, even unopened. The quality of the new materials was generally poor and their coverage of the curriculum incomplete, though they were to be found (usually stored away) in every primary school. Teachers took the poor quality of the kit as a symbol of the administration's lack of care for and interest in them. However, a few aids – the charts and abacus - were used quite widely by teachers.

Teachers had not been consulted about what the 'Blackboard' aids should be, and were surprised when they turned up. Though they had been 'trained' in their use they remained hazy about how and why they should be used. None of the training sessions had been synchronised with the arrival of the materials. With their unclear understanding, teachers generally thought that the innovation would involve them in extra work. Teachers' perceptions of their most immediate problems varied from area to area, but nowhere did Operation Blackboard address them. Only in those rural areas where there were no basic problems in the functioning of schools did Operation Blackboard find some acceptance. The policy initiative seemed to

almost all teachers to have provided a remedy for the wrong ailment. None of them perceived themselves as having any stake in the changes aimed at by Operation Blackboard. The same was true for other key stakeholders: the Education Minister of Gujarat State saw the initiative as 'a frill' that might yield some resources which could be applied as 'a little embellishment here and there', and for which it was worth making 'the proper sounds'. A District Primary Officer predicted that the teaching and learning aids would find no use: 'these things conform to an ideal…with conditions where luxurious play material could be used'. By 1995 Operation Blackboard had become little more than a vigorous school building programme.

Points of significance

1. Planners did not take account of the diversity of need on the ground, of the importance of context.
2. The management of change was not well planned: the training sessions were not provided at the appropriate time.
3. This innovation was interpreted in extremely instrumental ways by those on the ground and even by regional officials. There was no ownership of it or the thinking underneath it.

3.2 Modularisation: 'an innovation in search of a problem?'

The immediate origins of modularity and other curricular features usually associated with it (semesterisation, assigning credit value to assessed learning) lie in the United States. Though some characteristics of modularity can be found in the more distant past at Edinburgh University and in Oxford's Greats and PPE schemes, the Harvard system of elective courses was the inspiration for its spread across the USA and latterly to the UK. In the UK there were two distinct 'waves' of enthusiasm for modularity. The first in the 1960s was motivated by the idea of breaking out of disciplinary restrictions into inter-disciplinary schemes with names like 'Modern Studies' or 'American Studies'. The second wave came in the 1980's and 90's is more concerned with multi-disciplinarity than inter-disciplinarity, flexibility rather than integration and a managerial as well as educational and access agenda. With the government's attempt to reduce the size and cost of HE in the 1980's and the steadily declining unit of resource in the context of a push towards a mass higher education system thereafter, it was clear that new, more economical and efficient methods of 'delivery' were required. Modularity appeared to offer this: modular programmes were more easily managed; they prevented the duplication of the same content on different courses, and well-produced modules with clear aims and objectives could be taught by non-specialists. In addition they offered choice to students, facilitated part-time, flexible study through different modes of delivery.

The late 1980's saw a rapid growth in modularisation, first in the polytechnic sector then in the pre-1992 universities. By 1996 around two thirds of universities had adopted a modular curriculum, the majority of those having done so in the years since 1992. The systems adopted were, however, very diverse - unique to each institution. The aspiration of developing a national, even

international, credit system which would permit easy student mobility between institutions, carrying credit with them, was not achieved.

This was a remarkable dissemination of an innovation in a very short period of time - and it contrasted markedly with the 'failure' of modularity in the 1960s. What were the reasons for this success? First it promised a solution to the problem of doing more with less - dealing with more students in a situation where the unit of resource was being pushed down. Second it had powerful sponsoring agencies (Council for National Academic Awards (CNAA), Higher Education Quality Council (HEQC) as well as pressures from the Department for Education and Skills (DfES)). Third, there were a number of 'gurus' in strategic locations throughout the system pushing for a more flexible curriculum: they held conferences, set up organisations and journals, organised fact-finding tours to North American universities. But importantly, fourthly, this innovation appealed to different discourses and educational ideologies. It appeared to offer efficiency and economy as well as more control over the curriculum to managers and policy-makers. It offered those concerned with employment a flexible curriculum fitted to a modern economy. It offered the student advocate the potential for more choice, flexibility and currency in study.

For the radical it opened spaces for women's studies, development studies which could later flower into whole programmes. There was, in short, considerable affinity between this innovation and both the social context of the time and a variety of 'ways of seeing' within it. It also was capable of adaptation as well as simple 'adoption' according to local context: the very reason why a national system did not, probably could not, develop.

Points of significance

1. The innovation was 'fuzzy' enough to appeal to a variety of interests and points of view, even competing ones.
2. The innovation was adaptable enough to be changed to fit local needs and contexts.
3. The time was right for modularisation: the HE system was expanding rapidly and the old ways of doing things clearly would not work any more.
4. Powerful agencies backed the innovation, albeit for different reasons.

3.3. Introducing a new quality system: 'no discernible cultural change, just enforced minimum compliance'

An Australian university department decided to implement a new quality system involving self-assessment review by academic staff, particularly looking at the assessment procedures used there. A secondary intention was to bring about cultural change, particularly in terms of making staff more aware of the need for continuous quality improvement, and to change their practices accordingly. A change-agent was employed to facilitate the technical and cultural changes desired. The academics in the department generally had an attitude which said 'if it ain't bust, don't fix it'. Many

were defensive, believing themselves to be pathologised by the project and its assumptions. They interpreted the initiative as yet another bureaucratic auditing device, not an opportunity for better practice. They had had long experience of the introduction of new work-intensive and bureaucratic requirements in the past. For many academic staff the word 'quality' itself had come to symbolise additional administrative burdens which detracted from rather than enhanced their core work.

The initiative was launched during a period of industrial unrest at the university: union members were working to rule and the union argued that quality issues should not be addressed during this period. At the first meeting to introduce the initiative one member of the department asked, "in terms of work to rule – what about this Quality Assurance crap – uh sorry, stuff?" Informal meetings were held with the change agent, who noticed cartoons, posters and notices in offices which denigrated the concept of quality through humour. Such attitudes were, if anything, validated for academics by the discourse of the new quality management system: 'audit'; 'non-conforming product'; 'inspection criteria'; 'corrective action' etc.

Perhaps it was unsurprising that academics were slow to respond to tasks they were asked to do, or did not respond, or reacted with 'surface compliance' or with overt cynicism. There was mistrust and misunderstanding towards the developers of the quality system, the quality management team (QMT). Academics felt they were being scrutinised by the 'quality police'. Moreover staff were unwilling to allow the new technical system to impose on their own time and needs. There was mutual blame among the staff, the change agent and the QMT. The change agent reported that staff had not been involved in designing the system and so had no ownership of it. The QMT replied that 'staff who were now disgruntled chose not to participate from the beginning'. They blamed the change agent for failing to win over the staff. In fact only selected staff had been consulted about the system, and that was 12 months previously. The QMT themselves felt pressured by outside forces to introduce the system.

The QMT attempted to change attitudes by, for example, giving key rings to quality facilitators across the university and sending out kitsch slogans and recipes for 'quality cocktails' in memos to academic staff. Such communications were particularly badly received in those departments which were already performing at an optimal level.

In the end departmental staff did complete their self-assessment procedure, though only after much prodding. However there was no discernible cultural change, just enforced minimum compliance and no tangible improvements in educational quality. This outcome merely served to confirm the attitudes already held by academic staff in the department about 'quality'.

Points of significance

1. The innovation was 'read' by staff on the ground in terms which were conditioned by their earlier experiences of and attitudes towards 'quality'. These readings were detrimental to the success of the innovation.

2. The specifics of the context into which the innovation was introduced (for example the industrial unrest there) also meant that little real change was likely at that time.
3. Those responsible for managing this change acted in ways which were not sensitive to the likely reactions of those on the ground.

3.4 The Skills *plus* project: theory, tools and funds

The Skills *plus* project on student employability ran in four universities in the north west of England (Lancaster, Liverpool John Moores, Manchester and Manchester Metropolitan) between 2000 and 2002. It is distinctive because of its emphasis on students' personal qualities and, in particular, on their self-theorising. The contemporary focus of many curricula on learning outcomes (some of which are expressed in terms of key skills) has drawn attention away from the need to bring 'the self' explicitly into the educational picture. Yet students' often-implicit theories about the extent to which intelligence can be developed and the extent to which they can influence events are likely to have a pervasive effect on their learning, and more so on their employability. There is more, of course, to employability, since students also need to understand complex subject matter to develop a range of 'higher' skills in using it, and to acquire the reflective (metacognitive) abilities associated with 'learning how to learn'. More than two hundred semi-structured interviews, done as a part of the project, tended to corroborate this analysis.

This thinking owed much to research, largely from the USA, which suggests that the students' self-theories are significant in their further development (see Dweck, 1999). For example, if students believe that they are of only moderate intelligence, and that intelligence is fixed, then they may themselves impose a ceiling on their learning. Or if they believe that intelligence is fixed – simply, one is smart or one is dumb – and if they have been successful in traditional educational courses, then their efforts may be turned towards sustaining that self-belief rather than towards learning. The research in this area strongly suggests that a 'malleable' self-theory (the belief that one can affect one's experiences of work and life through a combination of good thinking and effort) is preferable.

A survey of 2269 undergraduates in five varied universities indicated that nearly one in three believed that people could not change their intelligence by much – in other words, they held a fairly fixed self-theory. A sample of 97 newly employed graduates produced a similar proportion. This suggested that there is an educational job to be done to encourage a switch to malleability, and hence the optimising of learning.

The project also had sixteen departments in four universities appraise their curricula against the model that in terms of their contribution to the development of understanding, skills, efficacy beliefs and metacognition (known as USEM). It found that the application of subject understanding, written and oral communication, and critical analysis figured strongly. Teamwork, sensitivity to the way that organisations work, self-management, and coping with ambiguity and complexity

were much less prominent. These research activities helped to identify areas for attention.

From there the project worked with departments to identify aspects of curricula that could be developed relatively easily within existing institutional validation and approval procedures: 'low pain, high gain' tuning, rather than radical reconstruction. These departments liked an approach that they were encouraged to adapt to their own disciplines and contexts, using it to help them work on problems that mattered to them. The Canadian evaluator and internal project reports all suggested that the project had an impact wherever it touched.

Points of significance

1. The innovation was strongly based in theory and research evidence.
2. The project leaders had substantive expertise in employability and procedural expertise in change processes.
3. Departments were encouraged to "domesticate" the initiative to suit their needs.
4. Additional resources (about £4000 each) were available to participating departments.

3.5 A bottom-up response to national imperatives: change through domesticating policy priorities

A department realised that its teaching would not rate highly in terms of the formal procedures expected by the Quality Assurance Agency (QAA). There would be a QAA inspection in the next two or three years. Changes would have to be made. Teachers, though, saw their modules as their fiefs and most could mount an epistemological critique of the QAA approach to teaching improvement.

The undergraduate programme leader concentrated on domesticating QAA requirements to be compatible with departmental values. Three examples follow: programme specification, criteria-referenced assessment and the development of a new undergraduate programme.

Few people in the department believed in 'skills'. One professor would mount a critique that cited Wittgenstein's position on rules and the psychology of situated cognition. However, they accepted that what they did and valued could be described in the language of skills. Those people who believed in skills could describe departmental practices in the skills language.

Brief descriptions of what students tend to learn in this sort of degree were circulated to teachers who were asked to identify any that could be strongly associated with their modules and to add any that were missed. With some creative editing, a draft list of the sorts of learning stimulated by the programme was produced, along with a grid showing what was being promoted where. It was discussed, 'tuned' and then checked in two ways. First, colleagues were asked to identify the teaching and learning practices they used to promote the learning they said was central to their modules.

Second, they completed another grid showing how they assessed this learning. (The assessment task was supported by a note explaining that assessment could be

formative or summative and that outcomes could be directly and singularly assessed, assessed as a group, or caught up in the assessment of other learning. This 'tool' was essential.) More deliberation and tuning was needed. Teachers then re-presented their modules' learning goals in terms of the programme specification, which, with some final tuning, was then formally accepted. It was complemented by three charts showing which outcomes were being emphasised in which courses, the methods used to do so and the associated assessment arrangements. These tools helped the team improve programme coherence and progression and highlighted areas to be emphasised in new module developments.

For similar reasons teachers were hostile to the use of criteria in essay marking but external examiners and QAA expectations made them grudgingly accept that there needed to be some, although there were those who argued that criteria could never displace judgement. The idea of grade indicators, or 'fuzzy' criteria was acceptable. Draft indicators were presented, revised, discussed with external examiners, tried, revised and stabilised. This is another example, then, of change being effected through tool development.

But then neither teachers nor students proved to be too scrupulous about using them. This was addressed by: printing the standard essay criteria on all the cover/feedback sheets that students attached to each essay; inviting them to say which criteria best described their work; saying that feedback should be in terms of criteria, both when it came to explaining the mark awarded and making suggestions for improvement; getting the second marker to verify that the criteria had been used appropriately. A simple change of stationery – a new cover/feedback sheet – got grade indicators into common use.

An opportunity arose to develop a brand new undergraduate programme. Colleagues found that ideas which had been unvalidatable a year before could now be convincingly presented with the help of tools like the programme specification (customised to the new degree) and grade indicators (likewise extended).

The department scored full marks in the QAA review and received a glowing verbal report.

Points of significance

1. This was a bottom-up domestication of a policy imperative.
2. Leadership was mainly expressed by the practical activities of developing tools and rules.
3. There were no additional resources available.
4. The exact outcomes could not have been predicted. The process of engaging teachers on the construction of working solutions to an externally defined problem was what mattered.

3.6 Introducing technology supported learning in an Economics department: resources and expertise

This change process is situated in a department of economics, which supported a number of professional development courses recruiting mainly from banks. The University had an explicit, if rhetorical,

policy commitment to Technology Supported Learning [TSL]. Recruits to the course are heterogeneous: some with no previous knowledge of economics, some who required updating. The change arose from a need to provide this opportunity to participants from a remote region. Initially the course director considered developing an outstation but the costs were prohibitive so it was decided to try a hybrid model of distance learning with three face-to-face meetings three times a year. The course began three years ago. There are presently 60 students in the cohort. This model has subsequently been adopted as the default model for all courses in the department.

Essentially the approach required an increase in the use of pedagogic resources available in various electronic forms including a website, a course manual, material on CD ROM, PowerPoint presentations which are made available and email discussion. The change problem facing the course leader was that staff who taught the course and a number of other staff in the department were very resistant to changing their teaching styles by making all their pedagogic resources available to students for remote or distance learning. Three factors were critical in the process of change. First, the Head of Department invested in a 'course secretariat', which handles all the technical support functions in general. Second, the central Teaching Resource Centre provided professional support and helped with the production of CD ROM and PowerPoint. Thirdly, the cadre of young assistants who act as tutors has been enthusiastic in their support for this kind of approach. In the view of the course leader, this enthusiasm,

has made the professors change. The assistants act as an intermediary, if something goes wrong, it doesn't matter so much, with professors, they worry. They really work with the professors. In that way, the assistants have informal power for change. In general, the new ideas come from the assistants; this is typical of our department. The informal structure is helpful for change, it enables people, it makes them responsible for changes, we value them and their knowledge. You could say that the assistants have knowledge power. We want them to transfer their knowledge to the professors.

The course tutor outlines how change occurred in the department:

My theory has to do with institutional support from a central agency and the need for an institutional declaration. We also need the freedom to experiment and try things out. People have to feel it is their own initiative. I believe there is some kind of social control going on, some kind of social conformity. When someone sees himself at the bottom of the ranking in terms of teaching methodology, he starts to think; the professors are continually evaluated by the students.

This quote is important. It suggests a complex process of change, which emphasises the power of good examples of practice. However, the assistants produced a momentum which could be described as a professional imperative to enrich the students' experience which acted as a form of social or professional pressure on more experienced professors to conform. At the same time the course tutor suggested that institutional rhetoric was also a key element for change.

Points of significance

1. The change was driven by the requirements of a new 'learning market', which all staff could recognise.
2. The change was supported by institutional and departmental rhetoric.
3. The Departmental culture was non-hierarchical allowing the impetus for change to come from relatively inexperienced sources.

The change was ultimately successful because the emerging norms associated with a 'new' pedagogy were adopted as legitimate by even the most senior staff and 'non compliance' became increasingly difficult.

3.7 Computer supported collaborative learning and community health teaching: change in an enclave

This course recruits medical students in Switzerland, Tunisia, Cameroon and Lebanon and is taught through a hybrid of face-to-face interactions and a web based learning space. It was intended to embody a change to community health teaching which was delivered collaboratively, had an international flavour and which used e-learning as its principal medium. It was intended to be part of an approach to change based on the idea of a 'beacon'. The course leader understood this to mean that the course would demonstrate what could be done with the technology. It would act as a practice-based exemplar providing a clear embodiment of a particular pedagogic approach. In the words of the course leader:

> We planned the course to encourage a kind of contagion, to have it as a showcase, a beacon. We wanted to convince people in the faculty, the problem is that we don't have the resources to publicise our work. So, ideally it would be a showcase. The money for materials is not so bad but for people it is very difficult. We are up against the cultural constraint of the value given to teaching in comparison with research; in some ways there is no structural incentive to change. However, I do believe we are at the dawn of a big change.

A key pedagogic idea is that socio-economic and cultural differences between participating students can be used to enrich learning by the interactions of teams of students as they confront differences in national health contexts and issues as they manifest themselves in different work roles and care sites. The knowledge base, produced in part by the DELPHI method, contains fact sheets, clinical cases, intervention strategies, web links and a glossary. The learning method is essentially problem-solving. The interactions are moderated and structured by a centrally based tutor. In part, the initiative was based on the idea of an external driver for change based on a kind technological determinism within the occupational sector, medicine in this case:

> Nowadays, doctors simply cannot practise without a knowledge of technology, it is a part of the work process. Secondly, there is a need for information technology to aid professional communication, exchanging information, keeping in touch with new developments. Thirdly, the pedagogical value of the new technologies is beginning to be well known.

The change problems confronting the team were associated to some extent with the technical infrastructure available for the participating students in some of the countries (e.g. bandwidth problems) but more importantly, a lack of institutional support in the host institution. What is interesting in this case is that while the change was ambitious, the strategy for change was rather undeveloped. In one sense it was as if those supervising change acted as if there was inevitability about these kinds of changes, assuming that the institution would catch up sooner or later and begin to fund learning support adequately. Importantly, the course remained a self-contained enclave which had little impact on the faculty as a whole.

Points of significance

1. The change was driven by the requirements of a new 'learning market' but involved a relatively small number of staff.
2. The change was supported by institutional and departmental rhetoric but not by resources.
3. There was no strategy to use the course as an exemplar of good practice. The way in which this example would change wider practice was undeveloped. A strategy for using good examples for change is needed to move from an enclave to a bridgehead.
4. The change was successful within the course but it remained self-contained. Its 'beacon' status was largely unfulfilled.

Section 3 Summary

1. Change processes are often imperfect: change is the art of the possible.
2. Being active and energetic is no guarantee of successful change.
3. Changes develop as they are created, applied and practised.
4. The best prospects for change successes come when resources, expertise and tools are all available, combined with some reason for change — such as external policy pressures — which means that people can take the change seriously. (Although there are always colleagues who display compliance and practice indifference or subversion.)

Section 4. What's to be done?

4.1 Axioms

This section comprises axioms about change that come from the cases and theories we have summarised. Together they show that trying to evoke change is not what people often imagine: other approaches, assumptions and time scales may be better than those suggested by naïve or taken for granted theories.

In general

1. Thinking about 'changing' is more productive than concentrating on 'change' because dynamism is always involved - 'innovations' will change as they are developed.
2. Responses to change on the ground will be strongly influenced by the different pre-existing situations there, including different histories. We can therefore expect the same intentions to work out quite differently in different contexts.
3. Innovations come loaded with meaning and emotional baggage. They may be welcomed warmly or viewed with suspicion or as a threat. Sometimes predicting responses is rather difficult, but it is worth the effort to try and make educated guesses about the probabilities of different sorts of outcome emerging.
4. Changes threaten to disrupt the distribution of power in HE contexts, including the relations between teachers and students (depending on the nature of the innovation). Expect opposition from 'losers'.
5. Innovations have a greater chance of success if they are seen as profitable (in a broad sense) by staff in the areas that matter to them - or that are made to matter to them.
6. Sometimes the time for a change has come - the time is right. Changes which are successfully embedded at one time and place may not be in another.
7. Existing cultures are extremely tenacious: cultural sensitivity is extremely important in devising change strategies. This makes the transfer of innovation hard.
8. Mandated changes may produce compliance, but professionals have considerable scope for compliance-without-change, resistance and subversion.
9. Small, incremental changes are more likely to be successful in the longer term than big bangs.
10. Expect those involved in planning change to lose sight of the detail of constraints and issues on the ground, even if they are practitioners themselves. The planning process itself imposes blinkers on the vision of the planners because of the generalising bias of planning itself. Thinking separately and creatively about the issues above and below can help smooth the implementation process.

You are likely to fail if you...

1. Look for single right answers.
2. See LTAC practices in isolation from the changing context of HE - particularly changes in the size and make-up of the student body.
3. See innovations in LTAC practices in isolation from lecturers' identities, beliefs and current practices.
4. Forget that colleagues will often balk at change unless it 'was invented here'; they'll discount 'foreign' innovations: NIH (not invented here) breaks change forces.
5. Think just about individuals, not the groups they work in.
6. Forget about history and contexts: they affect the way changes are understood and put into practice in very important ways.

You are likely to succeed if you ...

1. Can show that there is good evidence, theory and practice behind the proposed innovation.
2. Develop or use 'tools' that are
   - Both generic and adaptable locally
   - Likely to elicit positive responses both intellectually and emotionally
   - Profitable to those on the ground
   - Appropriate to needs in the new HE context.
3. Work to create a climate that is receptive
   - Through rewards
   - Through the way the innovation is presented and 'sold'.
4. Find good practice on the ground and work with that. Avoid deficit models of current practice - they alienate.

Expect...

1. Resistance and reconstruction locally (or simply ignoring, or being ignorant of, the proposed innovation)
2. The meaning and scope of an innovation to develop in local contexts as those on the ground work with it
3. Different outcomes in different locales.

4.2 Working priorities: a conclusion

Rather than just re-present what we have already said, we bring evidence and theory to bear on a question that will concern everyone involved in Higher Education in this decade, namely how to enhance LTAC in ways that contribute to the imperative of widening participation in higher education. We preface it with a view of what is involved, which we present as figure 4.

Figure 4: A systematic view of action to widen participation in Higher Education

Process	Some HE Actions	Comment
Employability If graduates are un/underemployed, the value of a degree gets devalued and recruitment and retention will be compromised. If systematic discrimination were to be seen in patterns of reward, the widening participation agenda, which depends on recruiting from communities who have often been discriminated against, would be compromised. A lack of rewards might also indicate the nation was failing to make good use of highly qualified labour, which would be a concern.	1. High quality careers guidance. 2. Careers planning embedded in the curriculum. 3. Personal Development Plans, transcripts, and records of achievement: progress files. 4. Work placements. 5. Vocationally relevant curricula and employer partnerships. 6. Key skills development. 7. Entrepreneurship modules. 8. Curricula with embedded employability enhancement.	HE cannot remedy structural weaknesses – there is evidence that British firms are often not able to make the most of their graduate employees. Nor can HE tackle employment discrimination. However, we can do a lot to help students present themselves as highly employable people with documented achievements to their credit – the Skills plus project is an example of an integrated approach to support this. This can be relatively low cost and could be compatible with many HEIs' principles.
Success This becomes more of an issue if HE successfully recruits people who may find it hard to come to terms with the sector's academic practices and other expectations. The National Audit Commission has already become interested in retention rates. The HEFCE will penalise HEIs with low retention rates. This is likely then to be extended to poorly performing departments.	1. Review student support and guidance arrangements – we know that non-academic factors loom large in 'drop out' decisions. 2. More fundamentally, ensure that LTAC is progressive, coherent and suitably supportive: reform assessment arrangements; design for legitimate success; review welcome/induction arrangements and other transitions, especially from level 1 to level 2.	Focuses on the whole student experience - a real challenge to HE principles and custom because it brings programme design to the fore. (There are also implications for the design of individual units/modules.) Existing assessment systems may not be fit for the purpose. Professional development is a major HR issue: teach at individual, departmental and institutional levels.
Recruitment Latest participation rate is around 41.5%. The target of 50% by 2010 means another 350-400k students in the system. Recruiting them will be hard, given that they will tend to be people from communities not accustomed to seeing HE as an occupation for 18 year olds. There is also evidence that these recruits tend to be less persistent, operating a different cost-benefit calculus from that used by 'traditional' students.	1. Partnerships for Progression involving FE and schools raise aspirations, and give pre-entry support. 2. Develop HE in FE – for example foundation degrees. 3. Widening access – for example postcode targets and 'fair access' policies. 4. Implementation of SENDA and equal opportunities policies in general.	Most HEIs are already active here. Recall that factors outside HE's control affect recruitment success, notably student finance arrangements. A degree also needs to be seen as something valuable, so graduate employment rates and rewards need to be kept high. In this sense the employability agenda is inseparable from widening participation.

We will pass by recruitment issues, which are already being addressed by a number of initiatives, such as Partnerships for Progression. Greater challenges are to be found in retaining the students we recruit and in enhancing their employability so that they have a good chance of laying claim to graduate jobs. There are lots of things that can be done but we think three are especially important:

1. Thinking in terms of the whole undergraduate experience, which is the experience of a programme
2. Making sure that programmes are coherent, in the sense that work in one module should contribute to learning in a later module. It entails planned progression, by which we mean the arrangements that support learners in their first, successful year and help them to become more autonomous and versatile successes at the end of their studies. This is sometimes described as providing scaffolding which is then progressively dismantled
3. Ensuring that assessment arrangements encourage the complex learning that is necessary if students are to have good claims to employability.

What does change thinking suggest about change practices that can help departments and teams respond to this policy priority?

Heads of teams and departments

1. Our main point is a long term one. Good, normal working practices are at the heart of an ability to reach out to any policy priority and incorporate it within the department's portfolio. Knight and Trowler (2001) have much to say about this non-specific business of developing 'learning departments'; ones that are always growing and are therefore used to processing change.
2. Good plans and strategies contribute to the development of good structures and cultures. Heads of teams and departments might do well to align their strategies for staff development with their strategies for helping teams to grow greater capacity for change.
3. Moving from these general points to widening participation and employability: we suggest that these are, first and foremost, curriculum issues. Since few leaders are in a position to redesign curriculum from first principles, we recommend a mixture of continuous quality improvement and complexity approaches (columns 4 and 5 in Figure 1).

4. Some commentators argue that these initiatives – widening participation, e-learning and employability – are compatible with academic values and a concern to stimulate good student learning. If so, then it would be prudent to look for ways of accommodating these polices to existing good practices and values. The approach would then be to build from the best of what is already in place. One way of doing this, already used in some schools, would be to convene a special interest group charged with developing tools, thinking and practices that bring what is into play with what would count as a good response to policy drivers.
5. Assessment audits are low cost ways to prepare the way for curriculum change. They involve comparing the pattern of assessment that modal students taking a programme are likely to experience with (i) the outcomes of learning identified in the programme specification (ii) a provisional account of what good assessment of all of these outcomes would involve. The Skills *plus* project (http://www.open.ac.uk/vqportal/Skills-Plus/home.htm) has shown how this can lead to 'tuning' activities that enhance the contribution that assessment practices and the curriculum as a whole make to student claims to employability.

Summary

In summary, the authors hope that you found this guide both interesting and useful. We wish you all the best of luck and offer these final words of wisdom

"All models are wrong; some are useful"

Nash, Plugge and Eurelings, 2000: 3

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We have recommended Michael Fullan's work and *School Improvement for Real* by David Hopkins. Both writers concentrate on schools, which means that neither directly addresses our interest in department-level change.

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Appendix A. A Guide to themes covered in GC papers on change in HE

The following codes are used to identify the other LTSN Generic Centre resources on promoting and embedding good practices in HE.

Elton = Dissemination: a change theory approach (Lewis Elton)

Hopkins = The Evolution of Strategies for Educational Change – the implications for higher education (David Hopkins)

H&S = Guide to Innovation in Learning and Teaching (Professors Andrew Hannan and Harold Silver)

Theme	Other GC booklets on change addressing this issue	See also
There is much to be learned about change from schools and studies of other organisations.	Hopkins	Fullan, 2001; Hopkins, 2001; Knight and Trowler, 2001; Knight, 2002b.
The theories of change that we use are usually tacit theories, operating subliminally. They may be fit for some purposes but other theories allow those wanting to innovate to assure themselves that their thinking is fit for the purpose.		Trowler and Knight, 2001
The importance of using power — rewards, sanctions — to stimulate change	Elton	
There is a place for top-down (centre-periphery or centre-out) change, whether driven by the accountability regimes, incentives or persuasion but there is consensus that belief in its efficacy far outstrips the evidence.	Elton, H&S, Hopkins	Fullan, 1999, 2001; Trowler, 1998
Organisational development perspectives have a lot to say about change management (that is to say about how best to drive a non-negotiable policy. Note that they cannot guarantee success).	Hopkins	
In terms of policy implementation, a system of regional change champions has been shown to be effective.	Elton	
A lot of change is bottom-up. It is important to encourage it.	Elton	

Appendix A. A Guide to themes covered in GC papers on change in HE (continued)

Theme	Other GC booklets on change addressing this issue	See also
When teams and departments develop effective knowledge management processes, they are also stimulating change and increasing capacity to change.		Knight and Trowler, 2001, especially Section 2.
Middle-out change is neglected but pivotal, lying as it does between top-down and bottom-up. This pictures departments and programme teams as the units of analysis when thinking about innovation.	H&S	
Local circumstances affect what is possible and what happens, which helps us to understand how departments that start off similar can end up differently, while different starting points can also lead to convergence.	H&S	Gray et al., 1999; Fullan, 1999, 2001; Trowler and Knight, 2001
Rational curriculum planning approaches to change can lead straight into management traps such as imagining that it is possible to implement complicated changes faithfully and that shortfalls in performance come from a lack of competence or of commitment.	H&S	Trowler and Knight, 2001
Complexity thinking encourages us to think about sponsoring change processes, rather than about assuming that they can be managed.	Hopkins, H&S	Fullan, 1999, 2001; Trowler and Knight, 2001.
The same sort of thinking emphasises the importance of building capacity to change.	Hopkins, H&S	Fullan, 1999, 2001; Trowler and Knight, 2001
Although there is no arguing with the proposition that people should understand innovations and why they are asked to change, there is a case for giving more priority to changing practices than to changing beliefs.		Knight 2002a, Chapter 12
The business of implementation needs sustained support and resources.	H&S	Fullan, 2001.
Evaluating change is not a straightforward business of measuring impact.		Knight 2003.

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Assessment, widening participation, e-learning, employability - these are just some of the issues which concern everyone is higher education today. No one person or institution has all the answers, and yet plenty of answers are out there. Within the UK's higher education institutions there are some excellent learning and teaching practices. Many of these practices are common to a number of subject disciplines and are easily transferable. The LTSN Generic Centre aims to broker this expertise and promote effective practices in learning and teaching across all disciplines.

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