Innovation in Open & Distance Learning

edited by Fred Lockwood
Anne Gooley

'Open and distance learning has changed in many different ways. New clients, contexts and technologies have spawned imaginative and exciting ways of creating learning experiences. This book is about these changes, written by those who are spearheading them.'
GAJARAJ DHANARAJAN, PRESIDENT AND CHIEF EXECUTIVE, COMMONWEALTH OF LEARNING

en and distance education has transformed from a minor niche market to a huge component of
instream further and higher education. Distributed, flexible and distance learning are now
mmonplace around the world for many learners, from 'traditional' campus-based undergraduates,
stgraduates and part-time students, to those studying at home or in regional centres, as well as
those involved in training or professional development.

e driving force behind this development has, to a great extent, been the application of
hnology to learning. This has opened up a wide range of issues and innovations in many fields,
luding the technology itself, pedagogy, staff development, student support, assessment and
riculum development. This book considers all of these issues and looks at how to get the best
m distributed learning in many situations.

h contributions from world-leading practitioners, this book is an invaluable guide to the
plementation of Web-based teaching and learning. It provides thought-provoking appraisals of
strategies and processes for managing change in education and will be essential reading for all
se involved in developing contemporary learning.

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'an impressive collection of progressive visions'
Dr Andras Szucs, Executive Director,
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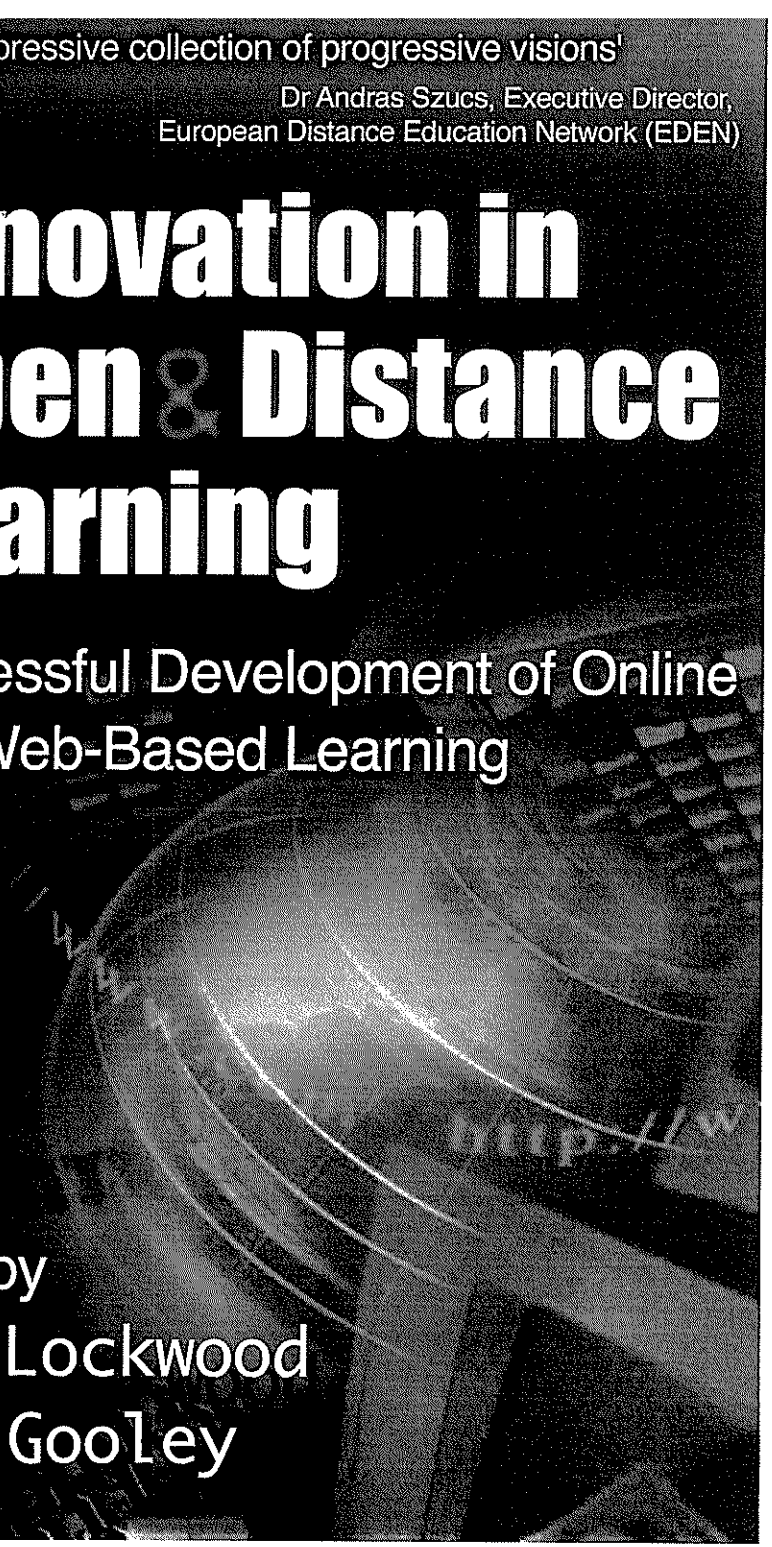
Successful Development of Online and Web-Based Learning



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Chapter 3

The influence of teacher beliefs on flexible learning innovation in traditional university settings

Edward Peter Errington

Introduction

As an academic developer, I observe continually how the creation or adoption of flexible learning approaches within 'traditional', campus-based-only institutions remains a contentious issue – not at the level of physical resources, but at the more fundamental level of university teachers' beliefs.

It has long been recognized that teachers' beliefs can have a significant impact on the relative success of innovation in traditional settings. Teacher dispositions: constitute a 'personal set of guidelines for professional practice' (Combs, 1982); provide the substance of teachers' 'personal practical theories of teaching' (Marland, 1997); and inform 'personal practical knowledge' (Haigh, 1998).

What follows is an exploration of the nature of university teachers' beliefs and their likely impact on innovation within more traditional institutions perhaps contemplating flexible forms of learning delivery for the first time. Given the influence of teacher beliefs, I discuss the kinds of challenges facing academic developers, institutional managers, and other change agents wishing to engage teachers in more flexible forms of learning delivery within traditional settings. I

have drawn out a number of explicit assumptions which academic developers might consider when formulating strategies to address the challenges to innovation posed by traditionally oriented teacher beliefs.

I do not underestimate the complex nature of institutions – the ways they encompass many different kinds of teachers, pockets of innovation and resistance, and diverse political groups – all exist at one and the same time. However, for present purposes, I pursue the discussion, assumptions and strategies 'as if' institutions possess a mono outlook – in so far as this enables a focus on the impact of teacher beliefs on the adoption, or otherwise, of flexible learning delivery.

Teacher beliefs are important

The beliefs of university teachers can profitably be viewed as part of 'belief systems' (Rokeach, 1970; Combs, 1982; Errington, 1985). Personal belief systems fulfil two important functions simultaneously: 'the need to know and understand, and the need to ward off threatening aspects of reality' (Rokeach, 1960: 70). It is the tensions between the two that can make or break flexible learning initiatives.

Within belief systems, the more central dispositions are seen to dominate other beliefs in the system, and are the most difficult to change. Central to a university teacher's belief system are likely to be dispositions regarding role. Although the relationship between teacher beliefs and practice has never been a clear one, it is reasonable to assume that those who see their role in one way are likely to differ in their practices from colleagues who view their role in some other way.

Linked to central beliefs about roles of teachers and learners are other dispositions about what constitutes 'worthwhile' knowledge; student learning; the organization of learning; assessment; and teacher-learner relationships (Errington, 1985; Schoenfeld, 1999). Toohey (1999) notes that these kinds of dispositions transcend individual teacher choices and enter the broader professional discourse used to define educational goals, delivery of subject content, and assessment practices.

For various reasons teachers may be open or closed towards innovation in their beliefs. Teacher beliefs heavily influence what is possible or appropriate within particular circumstances. Some teachers may believe that flexible learning is not a real option in the context of other held beliefs about student competence, degree of institutional support, or adequacy of institutional infrastructures.

Some challenges facing agents of change

Given the above, what are the challenges facing academic developers and institution managers wishing to employ more flexible forms of learning delivery in traditional settings?

Creating a teaching and learning infrastructure

One important consideration is the quality of institutional infrastructure in place to advance a particular innovation. The infrastructure consists of more than its physical, resource-bearing framework. Rather, the greater part is its human infrastructure – which operates at the level of beliefs, values and attitudes.

Teacher perceptions of support

Decisions about what teachers feel they can, or will, support by way of flexible learning initiatives are influenced by the degree of perceived support available at all levels of the institution. The quality of support for new initiatives is embedded within the institution's own culture. It determines the degree to which change will be facilitated by teachers. As Brown (2000) points out in Chapter 11, the challenges for universities wishing to adopt more flexible initiatives extend far beyond technical considerations to include a change of culture – signalled and led from the top. This culture consists of the belief climate prevalent at any one time. What kinds of teaching and learning climate does the institution promote? Is change welcomed? Or do teachers get the message that teaching is an inferior activity compared to the institution's more important 'research-led' aspirations?

Individual teachers working within traditional institutions are also influenced by the extent to which they believe colleagues support flexible learning initiatives. It is not unusual for a department to operate a variety of courses which demand a variety of delivery methods to meet the needs of a diverse student population. Nor is it unusual for departmental members to embrace a variety of beliefs about how learning should be delivered. Contestations about what constitutes 'real teaching' and 'real learning' still abound. Common departmental goals are needed if teachers are to achieve their educational ends – preferably linked to the university's mission. Students too play a part in influencing the adoption of flexible learning initiatives: for example, teacher views about lack of student access to computers may limit the kinds of flexible learning strategies they feel able to adopt.

Teachers particularly need to know that they are supported from the top, that there is a collective institutional vision with clear leadership, and that the institution is committed to flexible learning. Forster and Hewson (1998) observe the need for universities to develop a 'collective aspiration' if they are to achieve desired results. Lack of perceived support from any quarter can act as major constraints on practices teachers feel are possible within these circumstances.

Assumption:
Teachers need opportunities to identify and critically appraise resources and constraints at both a physical and a dispositional level. These may be allied to agendas of possibility in the light of held beliefs.

Managing innovation and change

To show teachers they are/will be supported, management need to send the correct messages via appropriate policies and strategies which are clearly designed to facilitate flexible learning options (Forster and Hewson, 1998). Institutional policies and strategies are likely to make explicit the targeted student population, intended modes of learning and teaching delivery, attendant resources including student and academic development requirements, and infrastructure needs (Marland, 1997).

Institutions need to be unequivocal about the kinds and degrees of flexible learning support they are willing to resource. Toohey (1999) points out that pressure generates the need for change, but it is support that facilitates such changes. The worst approaches to institutional innovation can occur when the institution is 'foggy' about its mission, and teachers are expected to use the existing infrastructure to deliver some very different kinds of courses. The best can occur when institutions have a clear message of intent, matched by a coherent strategy, fully resourced and underpinned by an explicit commitment to flexible learning at all levels – preferably formulated in consultation with middle managers, teachers, and student representatives. This message of intent needs to give a clear rationale why particular flexible learning initiatives are needed. Stephen Brown (2000) in Chapter 11 notes that the impetus for enhancing the quality of traditional provision at de Montfort University via mixed mode delivery was driven by the need for more flexible access to courses by students. Similarly, McLachlan-Smith and Gunn (2000) in Chapter 4 note the need to meet the flexible learning requirements of students unable to attend on-campus classes at Auckland University.

Experience shows that the most traditional of universities have a tendency to subsume open, distance and flexible learning activities within the resources of the broader campus-based remit. Where the characteristics of flexible learning are closest to the university's main campus-based mission, then support will be forthcoming (eg resources given for campus-based operations of summer schools). However, where the needs of flexible learning delivery differ from its traditional counterpart (eg costs of 'extra' audio-visual production support), then money may not be so readily available. 'Flexible learning delivery' at its most innovative may be too much of a radical departure for management. As Stephen Brown (2000) points out in Chapter 11, one way forward is to take existing institutional resources and 're-engineer' these to fit changing circumstances.

The place of academic development

When we examine the impact of teacher beliefs on the variable success of flexible learning initiatives, we do so in the knowledge that individual and shared teacher efforts have little chance of success without appropriately supported academic development from the top. Stephen Brown's (2000) experience related in Chapter 11 suggests that innovation can fail when it has no related academic development strategy.

In using academic development to introduce teachers to flexible delivery via the Internet, Toohey (1999) observes that a technology skills approach fails when it does not take into account the teachers' concept of teaching and learning.

Assumption:
Academic development is most likely to succeed when the teacher's own beliefs about teaching and learning provide the starting point. Articulation can lead to a critical examination of held beliefs and a reassessment of available options.

It is common for educational technologists to adopt a technical skills-only approach to training – leaving teachers to make their own connections between teaching, learning and the Internet (Murphy and Vermeer, 1998: 204). Questions of use, and subsequent criteria for discerning choice, are likely to be based on technological rather than pedagogical considerations. Some contemporary workshops involve teachers sitting in front of a computer screen in lab-like conditions – far removed from their real work setting.

Assumption:
Technical training needs to occur within the context of held teacher beliefs and values, not apart from them.

Teachers' beliefs about 'flexible' learning

What teachers believe about 'flexible' learning, how they interpret its (many) meanings, and put these into practice within their own traditional settings is also influenced by beliefs about teaching and learning (Mar and Mak, 1998). Teachers are only likely to view delivery options favourably in so far as they facilitate educational purposes.

Assumption:
The more academic developers know about teacher beliefs regarding flexible learning, the more likely they are to create appropriate development opportunities.

We more easily align ourselves with values similar to our own: a cursory glance at the literature on open, distance and flexible learning soon reveals a set of explicit teaching and learning values. Protagonists are seen to value a learning management approach (as opposed to an 'academic-as-expert' model); greater equity in teacher-student power relationships; diversity of student populations; equity of learning access; independent learning; negotiated learning tasks; variety of learning media delivery; and opportunities for reflective learning (Marland, 1997: 75). What is the degree of fit between traditional teachers' own beliefs and those espoused by proponents of flexible learning? If, fundamentally, teacher beliefs about 'flexibility' do not match those advanced by the institution or flexible learning exponents, what are the real choices facing teachers within the human infrastructure?

Assumption:
The more teachers' own beliefs are consonant with the professional values underpinning flexible learning approaches, the more likely they are to put these beliefs into practice.

When it comes to helping teachers choose appropriate forms of learning delivery, academic developers can facilitate decision-making by helping participants base their judgement on informed criteria.

One hurdle to confront academic developers is: How relevant is flexible learning delivery for the participant teachers? How will academic developers engage teachers in a judicious examination without making value judgements or undermining teacher confidence?

Without clear links between the flexible delivery option and held beliefs about teaching and learning, the relevance is likely to be lost. What is important for one teacher may not be so for another. To what extent will the innovative flexible delivery meet the teacher's learning objectives?

Assumption:
Flexible learning technologies which are perceived to facilitate learning objectives are the ones likely to be adapted and adopted most readily.

One measure of flexible delivery's relevance to teachers is its perceived application to 'real work' situations. According to Robinson (1998), academic development in open and flexible learning can fail when teachers are unable to connect the training content with their own 'real-work' needs or 'organizational realities'.

Assumption:
Knowledge gained about flexible learning alternatives needs to be embedded within the teacher's workplace – preferably on an ongoing basis.

Williams (1999) points out that changes may occur in traditional teachers' beliefs about technology *per se* – but the 'change' might simply involve a return to a central, traditional view of the teacher's role as 'expert' and student as 'knowledge receptacle'. That is, unless teachers have an opportunity to examine critically their pedagogical assumptions.

Assumption:
Teachers need opportunities to identify their held beliefs. They are then in a better position to examine them critically with a view to modifying beliefs and envisioning alternative practices.

Given teachers' often firm views about teaching and learning, there is a natural tendency to reproduce the same kinds of pedagogical approaches – regardless of the very different kinds of media employed (Forster and Hewson, 1998). Traditional teachers may use what Marland (1997: 86) labels a 'monologic model'. Here distance education study materials are prepared and packaged by the instructor and sent out to the many students, on a 'knowledge-as-given' basis. Students are not encouraged to engage in dialogue with the instructor, materials or peers. Rather, they are invited simply to 'digest' the package contents and regurgitate its contents later for examination purposes. Without alternative visions, teachers will apply their didactic beliefs to whatever constitutes a teaching event.

Traditional teaching at its driest follows the easier path of the known. 'We are happy with what we know best.' Familiarity with the path can lead to less innovative practices, and less interaction between teachers and students, and students with texts (Toohey, 1999: 91).

Recognizing the need for change

Teachers need to be aware of the need that change can be worthwhile, and have confidence in their ability to bring about the necessary innovations with appropriate support. As Forster and Hewson observe, teachers need incentives to modify their practices. What incentives does the institution have in place to reward those who accept the challenges it offers? Those working in the more traditional, 'research-led' universities may regard their efforts in the teaching domain as marginal if the institution gives a disproportionate amount of its rewards (eg career promotion) to those working in the research area – paying attention to university teaching and learning in so far as activities meet the standards set by the Quality Assurance Agency.

Helping teachers confront negative beliefs (fears)

A further challenge for academic developers is to find ways of helping teachers address and modify negative beliefs (fears) about the intended innovation in a non-judgemental manner. Those contemplating moves into more flexible forms of learning delivery express fears about: the potential loss of ownership of their learning materials when placed on the World Wide Web (WWW); learning assessment; students paying alumni to sit their examinations for them; and the lack of 'real' contact with students.

Assumption:
Teachers require opportunities to acknowledge and address their negative beliefs in a non-threatening environment.

The overall challenge for academic developers is to help teachers identify and critically examine beliefs about teaching and learning – and use these as informed contexts in which to site prospective learning innovations. I have found this approach to be most productive in promoting and achieving institutional goals. The assumptions extricated here form the basis of the strategies that follow.

Addressing challenges via academic development

Abdullah (1998) notes that teacher resistance to change is something that needs to be anticipated when planning for innovation. I believe that acknowledging and addressing the impact of teacher beliefs on any innovation provides one way of lowering resistance. The following strategies have proved useful:

Surveying teacher beliefs

- A brief audit of teachers' beliefs prior to meeting them. Academic developers can use this to gain a sense of where teachers are 'at' in understanding relationships between teaching, learning and flexible delivery (FLD) options. I also ask teachers what they hope to gain from attending the development event.

Teaching and learning as a rationale for practice

- We explore current personal visions of teaching and learning (their 'personal practical knowledge', Haigh, 1998). I ask them to describe recent teaching incidents of their own where an element of innovation was involved, and to reflect on their attitudes towards it.
- We explore *previous* experiences (if any) of flexible learning delivery (FLD). I enquire about the most/least useful aspects they have encountered, and to what extent they incorporate these useful aspects within current practice. The intention is to explore the practical dimensions of beliefs about FLD in relation to broader understandings of teaching and learning.
- We envision the kinds of *future* FLD courses they wish to construct in the light of held beliefs about what is (resource) or not (constraints) possible. I help focus on how to maximize resources and minimize constraints.

Focusing on 'flexible learning' practices

- In collaboration with colleagues, there are opportunities for staff to engage in hands-on training with selected forms of flexible delivery (audio, video, print, Internet) – consonant with the kinds of learning objectives they hope to achieve.
- Teachers are encouraged to link 'new' knowledge with earlier understandings in order to reconceptualize and redesign present, campus-based offerings. This can provide an opportunity for teachers to articulate what they have gleaned via explaining/presenting newly acquired understandings of FLD, and how these may fit into their 'real' workplaces.

Dispelling negative beliefs (fears)

- There are many reasons why teachers might be afraid to move towards more flexible forms of learning delivery, particularly the uses of the Internet. Teachers express concern about how they might:
  - make students more visible?
  - personalize tutor and student involvement?
  - engage students in interactive learning?
  - diversify and pace activities/tasks?
  - develop strategies for learning reinforcement, review and reflection?

  They come to realize that 'solutions' to these concerns (challenges?) are often embedded within the particular mode of delivery. For instance, teachers can be helped to understand that most traditional teaching and learning tasks have their equivalent forms of delivery via the Internet:
  - students handouts = electronic publishing;
  - group discussions = electronic conferencing; and
  - person-to-person communication = e-mail.

  Using the above examples helps teachers build bridges between the known (traditional delivery) and the less known (flexible learning delivery). They are urged to reassess their negative beliefs in the light of new information. The 'electronic solutions' above are seen as relevant to basic learning delivery tasks. We know teachers will more readily adopt those practices similar to their own.

Matching teacher beliefs with contemporary FL practices

- Notions of 'sameness–difference' are explored to help teachers compare their beliefs with those espoused by protagonists of FLD. Approaches closest to the teachers' own are most likely to be adopted. Those which radically depart from the teacher's own are the most difficult to promote.
- Notions of 'centrality' are also explored between teachers' held beliefs and those surrounding the selected learning delivery. If beliefs about FLD (the educational purposes it can facilitate) are viewed as peripheral to the teacher's main purposes (eg meeting specific learning objectives), the FLD approach is more likely to be abandoned. Teachers become aware of the 'goodness of fit' between held beliefs and FLD options.

Critically appraising media options

- Teachers are invited to investigate the best and worst that flexible learning can offer. Best practice might involve a significant review of the whole curriculum and a more carefully considered choice of content and teaching methods. Worst practice might simply engage teachers in delivering packages of materials, or down loading all lecture notes on the WWW (Toohey, 1999).
- Discussions are held about the appropriateness of media for particular purposes. Choices are set within the parameters of other (beliefs) constraints

impinging on practice. The focus is on issues of teaching and learning and how technology can serve educational purposes. Teacher concerns are extended beyond 'technical fixes' towards a critical understanding of the principles involved.

Investigating teacher beliefs about resources and constraints

- Teachers are encouraged to explore perceptions of support provided by the current infrastructure. Are these perceptions realistic? Do teachers need further information that might modify their views of support?
- Teachers are helped to define the degree to which they enjoy colleague support. Where does the common ground lie with colleagues? Where are the differences? Do these have implications for resources?

Embedding FLD principles into current practice

- Teachers are encouraged to create action plans which firmly embed FLD principles. These may target current or planned courses and will outline the necessary strategies and steps needed to optimize chances of success. Teachers will require help to put principles into practice, via guidance, monitoring and evaluation.

Conclusions

The 'infrastructure' for flexible learning innovation exists as much at the level of dispositions (what is believed possible) as it does on any physically resourced plane. Those who believe that the introduction of more flexible learning practices is simply a matter of applying economic resources to targeted areas, or that academic development events should focus on short-term 'technical fixes', underestimate the impact of teacher beliefs on any proposed changes. Teachers' 'commitment' to an innovation might usefully be viewed as a set of beliefs they hold which they use to judge an innovation's 'relevance', 'connected-ness', and 'centrality' in relation to their more fundamental beliefs about teaching and learning. Academic developers are in an excellent position to help teachers embed flexible learning initiatives within these powerful dispositions.

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