chapter 4

LECTURING: LARGE-GROUP TEACHING

I was in a state of panic throughout the lecture. I never looked at a face in an audience for fear it might smile, or frown or yawn. I've always lectured to the top right-hand corner of the room. I spoke very fast in order to get to the end. It was rather like crossing a narrow bridge over a causeway with lions on the right, tigers on the left. At the end of the lecture I always felt 'Now they can see through me and I'm no good' (Isaiah Berlin cited in Ingrams, 1997: 2).

The authority of those who teach is often an obstacle to those who want to learn (Cicero).

In this chapter, we focus on the lecture as an opportunity to stimulate critical thinking and promote reflective engagement on the part of students and the teacher. We contrast two models of lecturing – the traditional and the engaged – focusing on the integration of lecture content, structure and performance with key questions of student understanding and learning.

INTRODUCTION

When one thinks of teaching and learning in higher education, one invariably thinks of the lecture. The lecture and lecturing are almost synonymous with what higher education is about, particularly for undergraduates. It is what higher education teachers do; indeed, in the UK, it describes the title

of the profession – lecturer. Significantly, it also describes a way of human communication that would not be acceptable in most other forms of social interaction. The statement 'you are lecturing me' in almost all other social situations would not be a positive statement. It would be regarded as dehumanizing and unnatural, if not condescending and offensive. Yet, as a method of communication aimed at large groups of students (even in small groups), it thrives in higher education.

The large-group context makes the lecture an acceptable form of addressing others, just as it makes the speech or the sermon acceptable. In addition, the 'efficiencies' which the large-group context is purported to provide higher education support its continuing institutional popularity. Assuming adequate space, voice and technology, the lecture can 'teach' the student multitudes.

The lecture, however, has been increasingly and severely taken to task, as swelling student numbers have kept it a highly visible mainstay in undergraduate education. The educational assault of the lecture has mainly targeted its traditional or conventional form, which Bligh (2000b) describes generally as ongoing periods of exposition by a speaker, before an audience who is seeking to learn from the speaker. Some commentators have even called for its total abandonment (Barnett, 2000). In his now classic review of the extensive research literature investigating the achievement of the lecture, Bligh (2000b) found that lectures are:

- no more or less effective than other methods in transmitting facts and information;
- not as effective as discussion methods in promoting thought;
- relatively ineffective for teaching values, inspiring interest in a subject or for personal and social adjustment; and
- relatively ineffective for teaching skills.

In terms of the gap schema presented in Chapter 2, the research suggests that traditional lectures are as effective (but no more so) than discussion-based and other teaching methods in helping students reach the acquisition/recall of information stage in the first gap. It is, moreover, less effective in aiding students to overcome the other gaps. Given the strength of this research it is not surprising that educational scorn has been heaped upon the lecture and questions as to its continued use raised (Bligh, 2000b).

In defence of the lecture, however, Biggs et al. (2007) suggests that the lecture does have significant advantages over both group work and books, for example, which rest in the lecturer's unique scholarly mind and integrate

their role as teacher and researcher/scholar. The lecturer can bring to the lecture both her own critical perspective or angle on the subject and the most recent developments which books may not have had time to provide. In this, the lecturer becomes not only a facilitator for helping students transform and construct knowledge but also in the very practice of the lecturing can model that transformation for them.

More ardent champions of the lecture have suggested that the traditional large introductory lecture works particularly well for freshmen because they are still in the process of forming their adult identities and, as such, do not yet possess the ability to create knowledge for themselves. The anonymity of the lecture hall shields them from the embarrassment of sharing a 'wrong' answer and from being bored by the 'wrong' or meandering responses of their peers. Instead, these defenders suggest, the lecture provides impressionable undergraduates with the opportunity to see impassioned master learners articulate knowledge that has already been created for them. As Burgan (2006: 33) contends: 'Teachers are irreplaceable as models of knowledgeable adults grappling with first principles in order to open their students' understanding.' While these are admirable and necessary objectives for the lecture, alone they are not sufficient to justify the use of lectures. Such approaches and objectives can be achieved (and usually are achieved) more easily in small-group teaching situations.

To justify lecturing educationally, its one overwhelming advantage over all other methods of teaching must be acknowledged: that unique combination of incorporating live, face-to-face contact with large-scale student numbers. The former feature, of course, is common to most teaching and learning sessions in higher education, be they seminars, tutorials, workshops, lab settings clinical work, etc. The latter feature is common to much distance and open learning where technology and media can aid in large-scale teaching projects. Only the lecture, however, combines both.

To be seriously justified, the lecture must exploit this combination. Unfortunately, this combination has been traditionally and rather feebly justified as being 1) a good way of delivering content to 2) a large number of students 3) cheaply. The first point is mainly true for the teacher as 'transmitter', much less so for the student as 'learner. The second and third points probably provide the main reason for the lecture's longevity, but they are not integrated with the educational issues implicit in the first point. They do not address the critical aspect of the lecture as a method of live human contact, cost and numbers potentially achieved more efficiently by new technology. Both the justification for and description of the lecture, here, are couched in the linear (or monologue) model of human communication. Lecturing is

fundamentally a one-way traffic of information in which the lived human dialogue quality of the situation is unimportant.

Understood and practised within such a model, lecturing has little educational justification. Moreover, no matter the perceived benefits of lecturing, for students for whom the lecture is in a second language, these benefits may be lost as they struggle to comprehend the lecturer's expert reconstruction of the material (Miller, 2007). This chapter, however, looks at how the practice of lecturing might be repositioned within an dialogical and interactive model and, in doing so, take advantage of the tremendous potential of the live plus large-group experience.

BEING WHERE THE ACTION IS

Higher education is full of exceptional lecturers who inspire, provoke, stimulate and fuel the mind with new ideas, thoughts, feeling and the desire to learn. It is a very unfortunate student who has failed to be enthused or stirred by at least one lecture. These lecturers achieve with a wide range of styles and approaches, sometimes employing a wide range of techniques and other times captivating with the very simplicity of their methods. Most experienced lecturers will probably be able to recall at least one lecture which they gave where the combination of material, presentation, location, audience and so on seemed to come together into a wonderful shared experience of mutual learning and appreciation. Where it worked! It is possible. The problem is that these occasions are too rare and they are extremely difficult to repeat.

This quality is also the quality of lecturing which is generally regarded as somewhat mysterious and unknowable. Some lecturers can inspire; others cannot. It is a form of artistry; something you either have or do not have, a quality of birth, so to speak, which can neither be taught nor learnt. Consequently, it is often simply noted in discussions of lecturing with no serious attempt to understand it.

The best that one can do for the lecturer unfortunate enough to lack such qualities is to smother him or her in a range of tips, hoping that some will stick and be of benefit to their students. It is an additive approach. The lecturer remains essentially unchanged. While there are lecturers who undoubtedly take to lecturing more easily and successfully than others, it is not because they have added bits to their lecturing behaviour and personality, but (whether instinctive or learnt) is primarily a consequence of a different way of thinking about lecturing and 'being' a lecturer. Moreover, what is probably the case in the vast majority of occasions when 'it worked'

is that the vitality of the achievement was grounded to a large degree in the situation being live, large and engaged.

The wider experience of dialogue

Being *live* provides a wonderful opportunity for engagement and dialogue. Being *large* gives that dialogue the potential for a tremendous sharing. This should not be underestimated nor devalued. That feeling of sharing in large numbers can provide a wonderful feeling of intellectual security and exhilaration, of being part of a broader dialogue, a higher intellectual conversation that extends substantially beyond me into an extensive and inclusive network. It is the same feeling enjoyed at huge sports events, or cultural events or festivals. It is the feeling of relevance and of 'being where the action is'.

'Being where the action is' is a feeling often most fully enjoyed in large numbers. It can be enjoyed in smaller number but normally only when such numbers enjoy the authority and support of large numbers, such as being with social, political and/or cultural celebrities. A few lecturers enjoy such status and their very presence is often enough to engender such feelings.

For students, however, the experience of 'being where the action is' may simply rest in the opportunity to participate within a 'larger' higher education community, sharing with academics and a large number of their fellow students the various aspects of a new 'academic' language and new ways of thinking. This may consist of sharing the lecturer's comments about a reading list, or indications about what is central in a particular topic, or a new use of particular terms and vocabulary, or key remarks about the assessment/examination procedures, or hints about how to approach their studies in this discipline.

More extraordinarily, it will include the shared experience of being on the threshold (Meyer et al., 2007) or at the entrance to a new conceptual framework, a network of new ideas and concepts along with the opportunity to explore them and test them out. In all these the authority and weight of larger numbers can increase confidence and facility in new ways of thinking, understanding and practising. 'Being where the action is', of course, has its potential dangers. Numbers and authority can amplify confusion and insecurity, even become a form of intellectual tyranny, if badly managed, facilitated and/or directed.

All too frequently, however, lectures are neither directed nor facilitated. They are avoided. For reasons that we address below, the lecturer is often not fully engaged as a person. The result of such a lack of engagement is

the opposite of the feeling of 'being where the action is'. It is the feeling of being where the action is not: of being in a remote, impersonal situation replete with the feelings of irrelevance, anonymity, insignificance and disorientation.

Many students frequently realize that they can miss the lecture without missing anything of critical import. Others suffer on in the vain hope of relevance and meaningful connections, often yielding to what Carbonne (1998) refers to as 'internal noise' – those internal dialogues and mental tangents which transport them out of the lecture situation. Without a break, the maximum attention span of students in such lectures is about 10–15 minutes, after which learning drops off dramatically (Bligh, 2000b). The student is, at best, in reception of 'unmediated' content in which the lecturer's personal presence is almost invisible or even unhelpful. For some students, the better students, it is just about adequate. For most students it is not, and it certainly does not justify the lecturer's presence. While necessary, content is not in itself sufficient.

The experience of relevance

In an innovative study of students' experience of the relevance of lecture content, Hodgson (2005) found that students experienced relevance in qualitatively distinct ways. For some students their experience of the relevance of the lecture content was 'intrinsic', expressed in terms of their understanding of it and the meaning it has for them personally and linked to deep learning. The experience of others, however, was 'extrinsic', expressed in terms of assessment or even in terms of a merely hoped-for potential use and linked to surface learning.

Her main finding, however, was of a third kind of relevance, a *vicarious* experience of relevance which she describes as a 'bridge between extrinsic experience or a surface approach and intrinsic experience or a deep approach' (2005: 171). This vicarious experience, moreover, is related to the lecturer, to the way they lecture, to their enthusiasm, their use of illustrations, the ways in which they engage students.

Content is, then, not the problem, it never has been. It is the use and 'context' of content that is the problem. There is nothing inherently wrong with $e = mc^2$ or the idea that Hamlet suffered from an oedipal complex or that Thatcher came to power in 1979 or the theory of evolution. Whatever one's view of them, the existence of facts, ideas, concepts and theories to talk about is not inherently problematic – challenging perhaps, but that is not the point. It is how we talk about them – how we help students

encounter knowledge – that is problematic. In lectures, we rarely talk in the way they first made sense to the teacher but rather in ways that often do not make sense. We rarely design deep or meaningful encounters with lecture content and knowledge. As the stuff of human dialogue, content and knowledge reign supreme. As the stuff of monologue it clatters on deaf ears and disengaged minds and vanishes. When this happens, all too often the lecture as a method is blamed.

Models of lecturing

The issue here is not so much lecturing but rather the way in which it is envisaged and realized. As a practice with the potential to ignite that sense of 'being where the action is', the traditional lecture needs to be re-envisaged as a dialogue in which the lecturer and the students are genuinely engaged.

Table 4.1 notes some of the characteristics of such an 'engagement' model, contrasting them with those of more traditional 'restricted' models of lecturing. The restricted category of lecturing can be divided into two sub-models. The models closely echo the general distinctions observed with respect to both the models of communication and the conceptions of teaching described in Chapter 1. The models are distinguished in terms of two sets of descriptive features. The first set describes the essential structure of the lecture. The second set describes the nature of the lecturer. They are not meant to be mutually exclusive but, rather, descriptive and will become clearer when we describe the practical aspects of lecturing.

Restricted 1

The first restricted model of lecturing focuses on the content/material of the lecture exclusively. The lecturer is generally viewed as an instrument for transmitting information: head to 'carry' the material, body physically to transmit it. The approach is essentially prescriptive: improvement is restricted to communication tips being added to the lecturer, like fiddling with the dials and buttons of a television set to adjust the picture, sound, colour, etc., until the quality is sufficiently loud and clear. Lecturing is essentially separate from learning which is entirely the domain of the student and has very little to do with the lecturer.

Lecturing consists here of little more than the reproduction of tips to transmit the material. Its aim is to get the information 'out' clearly: to send it. The implicit assumption is of a linear monologue: that, given the lecturer can be properly heard, the success of lecturing lies in the quality of the information or material presented.

Table 4.1 *Models of lecturing*

Restricted		Engaged
Teacher-focused	**Student-focused**	**Learner-focused**
	Structure	
Lecturer agenda	Student agenda	Learning agenda
Lecturing is 'separate' from learning	Lecturing 'causes' learning	Lecturing is 'by-product' of learning
Content from teacher	Content for student	Content for learning
Linear structure	Linear structure	Non-linear structure
Monologue (conceptual transmission)	Monologue (conceptual explanation)	Dialogue (conceptual exchange and change)
	Lecturer	
Head and body	Head and body	Head, body and self
Severed persona	Cognitive persona	Engaged persona
Personal focus	Personal-other focus	Interpersonal focus

Restricted 2

The second restricted model also focuses on the content of the lecture but is also concerned that the student receive and acquire the content. As in the first model, the lecturer is essentially a head and body to provide the content, but there is a focus on the student. Improvement of lecturing goes beyond communication tips but is restricted to the acquisition of performance techniques and strategies for delivering the content as the lecture presents it. There is still an implicit assumption of the lecture as a monologue and, given the quality of the instruction and or explanation of the material, the lecture causes a transfer of content (and hopefully understanding) and will be remembered on the strength of the content and the explanation.

Engaged

The engaged model focuses on the lecturer as a person committed to engaging with other people in a dialogue focused on particular content. This approach considers the lecturer as the pre-eminent instrument for engaging with and communicating to other people. It regards issues of voice, body, movement, use of technology, etc., as aspects of the lecturer's personal engagement with the audience and the relevant content in the learning situation. It aspires to a deep integration or transformation of both the self and the lecture material in terms of the audience (students) to which both are directed. Its aim is to engage the audience: to facilitate both conceptual exchange and conceptual change in the students.

The view here is of the lecture as dialogue – that lecturing (and, indeed, being heard) is the by-product of learning and understanding. If the students learn, then the lecturing has occurred and has been successful, success being measured by the strength of the engagement as constitutive of the whole lecturing and learning situation. Throughout the rest of this chapter, we consider the practical issues of lecturing in terms of moving away from a reliance upon the restricted models and towards the development of an 'engagement' model of lecturing.

DESIGNING THE LECTURE

Designing a lecture from the perspective of the above 'engagement' model is essentially a question of designing a human encounter. In this respect, it is a professional performance addressing a range of issues with respect to both external and internal conditions. By these we mean, respectively, the overall teaching and learning context and design to which the lecture is contributing and the conditions or parameters of the specific lecture(s) itself.

Designing the internal aspects of the lecture needs, of course, to take into consideration the reasons why the lecture is being employed and what its role is within the overall learning and teaching context in which the lecture is situated:

- What general aims and objectives is the lecture method addressing?
- What contexts of meaning are appropriate and what dimensions are to be addressed?
- How does this relate to the other methods of teaching used, to the forms of assessment being employed, to the issues of evaluation being raised?

In other words, it needs to be designed within the overall context of the course and curriculum strategies that we explored in the previous chapter, including the appropriate context and dimension of meaning.

The three primary features describing the internal conditions of the lecture are:

- the lecturer;
- the student group to whom the lecturer is lecturing; and
- the material/content which the former is 'sharing' with the latter.

(We shall come to the environmental situation in which the lecture is taking place in a moment.) In the traditional 'restricted' models, the

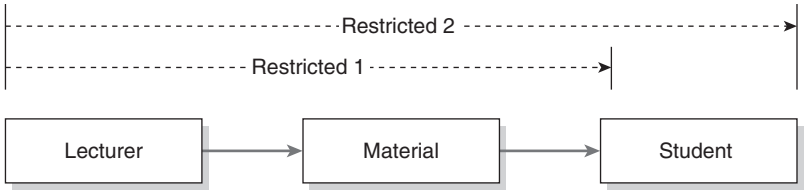

Figure 4.1 *Traditional/'restricted' lecture*

commonly regarded configuration of these three features is given in Figure 4.1. It is, as suggested earlier, linear in structure, placing substantial constraints on all three features.

The positions of the lecturer and the student group are essentially separated from one another. Their relationships are primarily defined with respect to the lecture content. The latter, moreover, is generally given in a textual format – knowledge as written – reducing its potential with respect to both the lecturer's presentation and the students' reconstruction of it. In terms of the structural matrix describing the teaching and learning environment, the conventional lecture has generally tended to focus on the intellectual context of student learning, drawing primarily on this content feature at the expense of the social, personal and practical. In addition it has primarily been constructed as a method of support to student learning – the materials and content chosen and structured with respect to what discipline 'knowledge' students should have at the appropriate level. This support, however, is usually conceived and delivered as a stream of facts, concepts, theories, etc.

The lecture does not have to be so constrained, either in terms of the roles of the student and lecturer or in terms of the structure of the learning matrix employed. In order to diminish some of these constraints the three primary features need to be reconceptualized without a centrally privileged or dominant feature. Figure 4.2 depicts the underlying structure of the engaged model of lecturing in which the material neither defines the relationship between lecturer and student nor remains aloof to change as a result of the relationship between lecturer and student.

In Figure 4.2, the lecture integrates the three features equally. The relationship between the lecturer and the student group is a human relationship potentially capable of addressing a much broader range of the aspects of the matrix describing the learning situation. It will also have repercussions on the way in which the content is chosen and structured. From this perspective the design of the particular lecture or series of lectures is not simply a question of designing a lecturing 'text' – determining and structuring the material to be presented – but rather designing a lecturing 'voice' or 'mode of being' which integrates material, students and self. By this we do not mean the

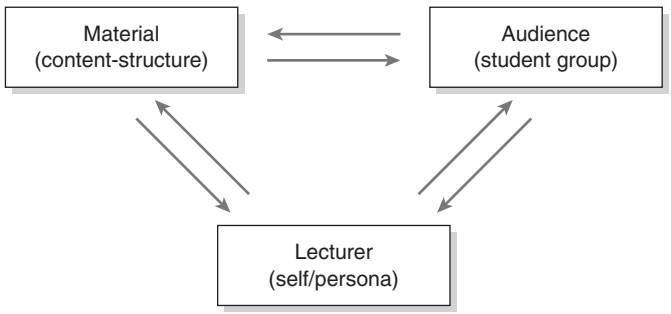

Figure 4.2 *Open/engaged lecture*

actual speaking voice but rather the way in which the individual lecturer is engaged with all the elements making up the lecturing situation. It encompasses the nature of the general learning matrix being used as well as more specific issues of lecture preparation, performance and management.

EXPANDING THE LEARNING MATRIX

As noted above, lifting the constraints on the relationship between the lecturer and the student group allows the lecture to address a much wider range of the learning matrix. Where, for example, a passive relationship almost by definition eliminated the potential for developing the social and practical dimensions of learning and commonly the personal dimension, a more active or interactive approach opens up the possibility for developing these learning dimensions. It goes beyond the few minutes for questions at the end of a lecture, providing time and a structure for students to become actively engaged throughout the lecture. The following activities illustrate the increasing range of such interaction:

- *Reflect*: provide time during the lecture for students to reflect upon the material presented, to digest it and begin to construct their own personal knowledge from it. This may consist simply of a few minutes out for reflection. It might be focused around a question posed by the teacher verbally or on a slide, such as: 'What is the main point of the lecture so far?'
- *Share*: provide time for students to share the main ideas and points of that part of the lecture with a neighbour. Again, this may be focused around a question or even a problem they address together. They may be asked to think of a pertinent question for the teacher or the class. They may, moreover, be encouraged to keep the same partners from lecture to lecture and to share out of class as well.

- *Discuss*: provide time for students to form small groups in which they can take the material raised in the lecture further. This may range from a free-flowing discussion to a set task or problem that they address together. Groups may be asked to elect a chair/spokesperson to feedback questions, points and concerns raised by the group to the teacher and/or to the main group plenary. Such groups may also be asked to work together outside the lecture.

These activities for encouraging interaction can, of course, be used separately or together, one leading to another in a *snowball* fashion. They may be used several times during the lecture depending on time and can be effectively linked to a series of pre-readings as well as the lecture material.

Students need some preparation in the acceptance and development of such interactive techniques. Teachers need to develop and practise their own practical and creative skills in initiating them and managing them within the constraints of the lecture hall. These activities, and others, can be extremely effective and successful for engaging students. They also provide the lecturer with feedback on how well their students understand certain key ideas or concepts by assessing their learning. Such activities – called classroom assessment techniques or CATs (Angelo and Cross, 1993) – can be used in very large groups and in a wide range of spatial configurations (CATs are discussed more fully in Chapter 8).

Managed well, interspersing teacher exposition with student activities offers opportunities for students to develop the social dimensions of learning with others and opens up the potential and time for practical learning in the form of task or problem-focused group work. In addition, it goes a long way towards addressing key problems associated with traditional lecturing, chief among those being the student's lack of engagement with the situation and the content, and the distracting internal dialogues ('internal noise') disrupting their concentration and attention. It permits the development of focused and pertinent dialogue, dialogues which, moreover, can be internalized and developed into active and constructive approaches to the content and material.

In this respect interactive techniques of lecturing encourage the development of the 'double-arrow' nature of the relationship between the lecturer and student group in Figure 4.2 above, extending its dynamic and potential. Such techniques, moreover, also sanction the personal dimension of learning and, at the same time, extend the relationship between 'student' and 'material' in Figure 4.2. In providing the space for students to contribute their own personal material to the lecture situation, material from their readings, personal experience, reflections in the form of ideas, concepts, illustrations and so

forth, the interactive lecture is able to enrich the material/content aspect of the lecture immensely.

While the lecture is primarily regarded as a method for supporting student learning, the open/engaged model permits the possibility of developing the lecture as more of a process for facilitating an interpersonal context of learning. Here, interactive learning techniques are extended to overall leadership of the lecturing session. Individual groups of students or the whole group itself may be given the authority and role of deciding the content/material, the objectives and the learning methods of particular lecture sessions or even series of lectures. Structured guidelines for such student-led sessions and training in their operation may be necessary but they have been found to result in wider-ranging discussions and more complex learning outcomes (Tang, 1998; McKeachie, 2006). Lectures might also be used to encourage the development of such peer-run groups outside the classroom.

The lecture, moreover, need not confine itself to supporting learning or facilitating interpersonal learning. Lectures or substantial parts of lectures might be designed to encourage independent learning. This does not simply mean devising innovative methods for interactive group work. It requires methods by which they are encouraged to develop independent curriculum in certain topics, with guidelines and strategies for self-direction in their out-of-class reading, use of the library, exploration of computer-mediated resources, electronic bulletin boards and so forth. It may include – particularly for more mature students and part-time students – sessions that encourage critical self-exploration of appropriate social, cultural and work-related activities. Each provides potential access to the range of intellectual, personal, social and practical aspects of their learning.

The context and dimensions of student learning are here intrinsic to the lecture, guiding the development and complexion of the matrix on which the lecturer will develop their design. How the lecture matrix is structured will ultimately depend on the overall course matrix (Chapter 3) and includes subject matter, the level and experience of the student group, the learning objectives for the lecture sessions, the other teaching and learning activities and methods and so forth. It will also have significant implications for preparing the lecture, its performance and management.

LECTURING PREPARATION AND PERFORMANCE

Preparing for a lecture is both more important and more multifaceted than is often imagined, particularly if one is preparing an 'open/engaged' lecture. All too frequently, lecturers regard themselves primarily as the writer of a

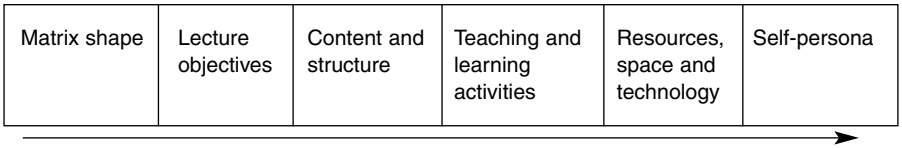

Figure 4.3 *Key areas of preparation*

lecture and, sometimes, albeit reluctantly, as an actor delivering the lines. In truth, they are writer, actor, director and producer, responsible for all aspects of performance and its preparation. The main function of these roles is to ensure that the key links between the lecturer, the students and the material shared between them are integrated, aligned and working together. In this respect, preparation should focus on the development and relationship between six key areas (see Figure 4.3).

The arrow in Figure 4.3 suggests that decisions and consequent links will tend to go from left to right, although this is not strict. There is typically a recursive aspect to preparation which entails a back and forth movement across the features. Limits and constraints in the resources and space available will have repercussions on what can be effectively accomplished. Generally, however, it is useful to decide on the shape of the learning 'matrix' that the lecturer wishes to address and then design the specific objectives and content/structure for the lecture in light of that shape. Much of this part of the preparation may already have been undertaken in the overall course design (see Chapter 3). The precise teaching and learning activities that the lecture will employ, the nature of the resources used and the personal style or approach which the lecturer adopts, ideally will be composed to realize these objectives.

Lecture matrix and objectives

In designing the shape of the lecture matrix, one has to be realistic and take into consideration the overall shape of the course matrix and associated objectives (Chapter 3). While the lecture can address more issues of learning than generally acknowledged, it cannot achieve everything. Nor should it be expected to do so. Within these parameters, the specific objectives should be realistic and achievable for the students, and may even be negotiated with them.

Content and structure

The main question here concerns the relationship between the specific content of the lecture – which needs to relate coherently with the overall

Table 4.2 *Lecture structures*

Traditional – linear
Problem-oriented
Comparisons
Thesis
Sequence – development
Network
Concept map
Case studies

general topic/subject of the course or lecture series – and the structure of its presentation. A well planned lecture allows the instructor to:

- summarize vast chunks of material succinctly;
- present cutting-edge research not found in a textbook;
- provide students with necessary background or a conceptual framework;
- present key concepts, ideas and principles clearly; and
- model how scholars approach or solve problems.

Lecturers, however, routinely take a linear and/or textual approach to the structuring of lecture content, an approach often derived from their own experience, from the textual nature of their own engagement with the material and from not reflecting on the alternatives. Yet, lectures are primarily an oral experience providing the opportunity for a range of more non-linear structures. Table 4.2 presents just a few options which lecturers may wish to consider.

While a charismatic instructor certainly can get students excited about the material (McKeachie, 2006), these alternatives illustrate just a few possibilities for approaching material in ways designed to facilitate student learning. They include helping students make connections, challenge preconceptions, relate the material to concrete problems and/or real cases and critically analyse hypotheses and interpretations. They can also aid students to develop higher-level conceptual tools – models, maps and networks – for exploring and developing ideas, concepts, facts, skills, attitudes, personal and social interactions and so on.

Choice of structure will, crucially, include how the material is introduced and concluded, be that with a problem, an illustration, a quote, an object, a picture or even with an explanation of an unfamiliar structure itself – all of which might be used as introductions or conclusions. As cognitive psychologists have found, effective processing includes attention, interpretation, elaboration, generation and retrieval practice. A lecture, then, that is carefully structured in such a way that both repeats and introduces new material across

the term, will enable students to focus, draw on and connect with prior knowledge and experience, elaborate and build knowledge, and ultimately retrieve that knowledge in new contexts (deWinstanley and Bjork, 2002).

Teaching and learning activities

Opening up the possible lecture structures that can be used also opens up the range of teaching and learning activities, as indicated above, which may be employed. Ideally, the structure and activities will be developed together, complementing one another. A problem-oriented structure may, for example, begin with a demonstration: concept maps with group discussion, case studies with role-play and so on. The design of this relationship between lecture structures and activities provides the key location for creativity and innovation in lecturing. Even given the usual academic constraints of what is 'permissible' as well as those of space, time, resources and so forth, the permutations and possibilities available to the lecturer are limited primarily by their imagination and confidence.

Problematizing teaching

The most effective lecture structures often share a common and critical characteristic: they problematize the student's encounter with the lecture content. According to Ken Bain (2004), the 'best' or most effective college teachers were distinguished from their less accomplished colleagues in how they engaged their students with questions in their teaching, especially their lectures. In a study of 63 college professors from a range of disciplines, he found that the lectures of the more accomplished lecturers problematized their lectures in five separate ways. They regularly:

- began with a question or story that raises a problem;
- found ways to help the students understand the significance of the question (by helping them connect it to other larger questions or their own experience);
- asked their students to answer or engage critically with the question;
- answered the question for the students; and
- ended the lecture with a related question.

The only step they did not do, on occasion, was to answer the question. This, ironically, is often all that most lectures actually do: provide answers (in terms of facts and content) for questions which have not been posed to the students, and the relevance of which has not been articulated, and

which the students do not get a chance to answer or grapple with in the classroom and which are not related to further questions or problems. While these excellent lecturers will often simply pose questions directly to the students, more often the students are encouraged to come up with their own questions and to construct meaning of course content (Bain, 2004). The problematized lecture structure gives students a model for how to raise critical questions and actively engage with the course content in their study individually or with peers (see Box 4.1).

Box 4.1 *Lecturing to large groups*

Elisabeth, a professor of cardiology in the medical school, has been asked to do five linked lectures for a large group of second-year medical students. More used to teaching in rounds and in small clinical settings, she was a bit daunted about speaking to one hundred staring faces. Having sat in on some passive lectures given by her peers, and recalling her own experience as a chronically tired med student struggling to stay awake in class, she knew it was necessary to engage the students. She decided to structure her lectures to promote critical thinking and engaging student learning without sacrificing crucial content.

Importantly, she sought to problematize each lecture, by asking them initially to reflect critically on a key question pertinent to the topic, to underscore the relevance and application. She then broke up her presentation by asking students to form small groups and to predict responses or generate answers, and simply to take a few moments to reflect on how they could apply what they had just learnt to clinical settings. By varying the length, time and type of student response breaks, students remained engaged in the lecture throughout, and felt comfortable asking questions. Professor Wagner also gauged student comprehension of difficult concepts by asking them to answer a simple question or to generate a new question about the material. This gave her instant feedback on her teaching and their learning. She often had them do this in groups or pairs, to promote the interpersonal, as well to enhance their individual learning.

Resources, space and technology

Preparing for the lecture also requires an imaginative examination of the technological resources available and their integration with the lecture structure and specific activities. In the first instance, this might entail what the space will look like for both lecturers and student group. Lecturers exist in three dimensions but often stand or sit in a one-dimensional spot and deliver in a straight line out to a student body. What possibilities exist for movement: both among students and in front of them? Can they be developed? Can the students easily move or slide into groups? Has the lecturer positioned him or herself in front of a lectern or next to an overhead projector so that movement is inadvertently (or even intentionally) limited? Is he or she maximizing the potential of the space?

What resources are available: projectors, computers, Internet access, conferencing facilities, video equipment, laboratory apparatus, pictures, maps, objects, whiteboards, blackboards, flip charts? Are they familiar

Time	Objectives	Content and structure	Teaching and learning activities	Resources, space and technology
0–10 mins				
10–30 mins				
30–50 mins				
50–75 mins				
75–90 mins				

Figure 4.4 *Sample lecture script*

with and able to use the equipment? Can it be configured in ways that will help, not hinder the lecture? Can personal resources augment available resources? These questions need to be carefully addressed and integrated within the overall preparation. How, what, when and where might resources be effectively exploited?

It is not a good idea to become overly complex and technical just for the sake of it but, on the other hand, it is unwise to avoid using resources that may add significantly to the lecture out of fear, unfamiliarity or lack of skill in their use. Good preparation will include becoming skilled and innovative in the use and deployment of relevant and appropriate space and resources, ranging from ensuring that slides are interesting and easily read, to 'reconstructing' the space to encourage movement, interaction and alternative learning activities.

One useful way of preparing for a lecture is to write out a lecture script. Figure 4.4 gives a simple example setting time guidelines against learning objectives, content and structures, teaching and learning activities and resources to be used. Such scripts provide a guide to making effective relationships between these areas and permit the lecturer a quick guide or summary of what she is doing. Lecturers may draw up their scripts in a variety of different ways, expanding, condensing and experimenting. A script may even provide a useful resource for students.

Self-persona

So far, we have primarily been discussing the lecturer in his role as the writer, director and producer of the lecture. Lecturers, of course, have a critical role as actor or performer – a role often neglected to the detriment of both themselves and their students. The area most often neglected is what might be called the lecturer's inner self or persona. The lecturer's intellect is called upon, as is her physical presence, but her inner self often is not. This is understandable and underpins the general performance dilemma that

Isaiah Berlin describes as being 'in a state of panic throughout the lecture. I never looked at a face in an audience for fear it might smile, or frown or yawn'. Box 4.2 describes an embellished version of this dilemma.

Box 4.2 *Lecturing performance: the dilemma*

Nervous and anxious, the inner self does not actually enter fully into the situation. It leaves the self's presence up to its intellect and body. This is the key problem. Without a self to regulate it, nerves get in. There is an empty 'place' for them to inhabit. From this position, they begin to manipulate the situation rather mischievously. They begin to play with the voice: too high, too fast, too breathy, too laboured. They begin to play with the hands: in the pocket, by your side, behind your back, crossed arms, etc. They begin to play with movement: pacing repetitively, entirely static, back to audience, shuffling, rocking, etc. They begin to play with eyes: not looking at anyone; skidding away; looking over top; trapped on one person. They begin playing with time: too fast, too slow, with objects. They fiddle with pens, combs, paper, glasses, watches and rings. They play with machines: switches do not work, slides and transparencies appear upside down and screens wobble. They begin playing with the space: tables, chairs and lecterns suddenly surround and constrain or, alternatively, look miles away; the floor is a menacing void. Not content simply to play with these aspects of the lecturer's actual performance, nerves then rather maliciously begin to make the lecturer hyperconscious of what is happening, setting off a debilitating succession of feelings of panic, fright, alarm, dread, frenzy, terror and hysteria. The intellect all but collapses and the body all but freezes. The tiny fragment of the self that may have been there has long ago fled.

This, of course, is an exaggerated version of the lecturer's worst nightmare. The solution is rather simple, if requiring some practice and preparation to implement. Bring yourself into the lecture! More accurately, do not let yourself depart. Maintaining a lecturing self or persona in performance is the key to developing a lecturing 'voice' and the secret to cultivating an encounter 'where the action is'. It requires the lecturer to decide the kind of person he wishes to be for the lecture. This should not be something counterfeit or insincere but, rather, should be informed by positive and appropriate aspects of the lecturer's own personality and extended for the engagement with students. It might, for example, consist of being:

- open and friendly;
- expert and authoritative;
- emotive and enthusiastic;
- relaxed and dry;
- reflective and analytical; and
- unpredictable and challenging.

Such selves or personae are best tailored to particular times and audiences. A matrix shape concerned with support, for example, may be open and friendly, whereas a matrix shape focusing on encouraging independence might be more analytical and dry. They are, of course, not mutually exclusive.

Critically, a teacher should not feel compelled to adopt a persona that is unnatural or seems to go against the grain of his or her personality. 'But I'm not an entertainer,' many teachers protest. 'I can't run around the room, telling jokes or being dramatic.' This may be true for many of us, but we can still dig down and reflect on what about the material inspired or engaged us, and seek to share that enthusiasm with our students. Such selves should normally also incorporate a willingness to enjoy oneself within the central concern to engage students.

Preparing the self adequately, moreover, usually requires a degree of 'rehearsing' with the material, space and resources, particularly if they are unfamiliar. Even two or three minutes spent preparing both the lecturing self and the space can be immensely effective.

Finally, it is worth remembering that a lecture is not a monologue starting from nowhere but rather a dialogue responding to a tangible comment or question or expression of interest evidenced by the very presence of the student group. The nature of that interest is precisely that which the lecture is addressing and is embodied in the lecture's objectives. Preparation, however elaborate, is then preparation for a response. The degree to which one prepares will depend on the lecturer, the lecturing style he or she develops, the environment and so forth, but providing time for preparation can make all the difference to both the students' and the lecturer's learning.

DELIVERING AND MANAGING THE LECTURE

Lecturing 'tips'?

How the lecturer delivers his lecture will depend largely on how the above issues have been developed and prepared. The idea of an *engaged* encounter focused on dialogue and student learning addresses a wide range of key delivery issues often provided as communication 'tips' in a rather additive way. These include:

- taking care that you can be heard by everyone;
- making eye contact with the whole student group;
- ensuring that your visual aids and handouts are clear;
- using humour, anecdotes, illustrations;
- stressing important points; and
- being prepared to be flexible and change/add/delete aspects of the lecture.

Such general 'tips' are important but must make sense to the lecturer and not be slavishly implemented for reasons the lecturer is not sure about. All

the above points are largely common sense and, in each case, their effective use is a result of an 'engaged' lecture.

If, for example, a lecturer genuinely wants to engage and communicate with his or her students he or she will naturally want to find ways to ensure his or her voice is heard (using microphones if necessary), to make eye contact and stress the important points. This is not simply a question of raising one's voice to the minimum required of a monologue or staring at students or underlining points for the sake of it. Similarly, the design and clarity of visual aids and handouts are to enable engagement, not simply for the transmission and simple acquisition of content. Humour, anecdotes and illustrations, moreover, may be prearranged but their use is most effective when they arise naturally and are not merely inserted into the lecture [e.g. 'Tell joke here']. Be prepared not to use them or to use others where appropriate.

Likewise, be willing to improvise – to change, delete and add material – if this encourages engagement between lecturer, students and material. Lecturing tips and communication advice should not be simply added on without thinking through their intention but, rather, integrated within the lecturing 'voice' or 'way of being' and practised only in so far as they promote engagement and learning.

Management styles

If the range of 'lecturing voices' behind the delivery of lectures is broad and diverse, there is also considerable latitude in the general management styles employed in lectures. They range from the complete 'laissez faire' to seeing the classroom as the 'sacred temple of learning' (Carbonne, 1998: 77–8), with many shades in between. They each have their respective responses to such issues as: attendance, arriving late/leaving early, reading non-classroom materials at the back, checking email, using the Internet, side talking and so on. Some lecturers will accept just about anything; others will accept very little.

There is no right or wrong as such. What is appropriate for the class is usually for individual lecturers to decide, but should develop from the relationship between their lecturing self, the nature of the student group and the material. Moreover, the instructor should address disruptive or offensive behaviours, but should identify those behaviours upfront, in class and in the course syllabus. It is unlikely that one set of rules or expectations will be appropriate for all situations. The key issue will be the effect of the behaviour on the quality of the engagement and student learning and this may, in many cases, be effectively shared and negotiated with the student group.

Evaluation

Finally, developing and improving one's lecturing is an ongoing process. As a semi-public practice, lecturing allows for feedback from a variety of sources other than one's own reflections and judgments (see Chapter 9). These will primarily consist of colleagues and students and may include the use of student evaluations, peer observations, digital recordings and teaching observations (see Appendix 1) and so on. Evaluations and feedback will provide a wealth of data and useful comments, information and suggestions.

Reflecting and implementing the results of this feedback needs, again, to be considered within the context of the full scope of lecturing as a process of engagement. A small number of teachers will, for various reasons, be unable to develop lecturing approaches in which they are engaged with their material and their students. These teachers should, if at all possible, look to alternative methods of teaching.

CONCLUSIONS

In many ways, the lecture is the classic scapegoat for attacks on the quality of higher education. These attacks may be warranted – they are certainly not surprising. Regarded by society at large as almost synonymous with what the university does, when quality is challenged, the lecture will be first in the firing line, protected only by its embedded traditions and its sheer efficiency of working with large numbers of students. It does suggest, however, that widespread and substantive change in the way in which academics approach the lecture may profoundly change how the university is viewed, by all those who work in, and are served by, higher education.

Final questions: The emphasis on coverage – and the perception that one must not sacrifice content or waste course time with alternative learning strategies – continues to make its mark. Reflective professionals may want to consider: what are there barriers that I must address in promoting interactive and learner-focused lecturing? How many of these barriers are due mainly to my discomfort with a new approach? Are there other, non-lecture-based teaching methods that might be more appropriate for meeting my learning objectives? What strategies can I use to engage my students in actively participating in the presentation of the lecture? What activities and/or lecture-related assignments might assist students in the active construction of new knowledge? Addressing these questions will help change the very nature of the lecture as it has traditionally been regarded.