**Six key principles of effective teaching in higher education**

**Principle 1: Interest and explanation**

The first group of characteristics contains elements described in studies of student evaluations as quality of explanation and stimulation of student interest. Few people will disagree that a facility for giving clear explanations of complex subject matter is a mandatory part of a lecturer’s repertoire. It is evident that this facility can be learned (see Brown 1978). Even more important, however, would appear to be the related ability to make the material of a subject genuinely interesting, so that students find it a pleasure to learn it. When our interest is aroused in something, whether it is an academic subject or a hobby, we enjoy working hard at it. We come to feel that we can in some way own it and use it to make sense of the world around us. We are more likely to focus on the subject matter itself rather than the institutional context surrounding it. And this is even more likely if an explanation of why the particular method or fact that has to be learned will be useful in the future is added. These attitudes and behaviours are, of course, part-and-parcel of deep-holistic approaches to learning. We can all be helped to find meaning if our teachers show us how it can be done, and how exciting it is to do it. Our old friend Sawyer ensnares this aspect of good teaching, and its converse, and presents them with exactly the stimulating qualities they imply:

To master anything—from football to relativity—requires effort. But it does not require unpleasant effort, drudgery. The main task of any teacher is to make a subject interesting. If a child left school at ten, knowing nothing of detailed information, but knowing the pleasure that comes from agreeable music, from reading, from making things, from finding things out, it would be better off than a man who left university at twenty-two, full of facts but without any desire to inquire further into such dry domains. Right at the beginning of any course there should be painted a vivid picture of the benefits that can be expected from mastering the subject, and at every step there should be some appeal to curiosity or to interest which will make that step worthwhile.

(Sawyer 1943:9)

**Principle 2: Concern and respect for students and student learning**

The second set of qualities is mainly about our consciousness of students and our consideration for them. These personal qualities are mandatory for every good teacher; it is sad that they are often scarce commodities in higher education. The consummately arrogant professor, secure in the omnipotent possession of boundless knowledge, represents a tradition that dies hard. Certain lecturers, especially new ones, seem to take a delight in trying to imitate him; I sometimes meet his images in classes designed to prepare new academic staff for teaching. They are under pressure to show toughness, stringency and inflexibility in the face of student mystification; they are full of the haughtiness that their effortless mastery of their subjects permits; and it presumably gives them a feeling of superiority to adopt a condescending posture like John Macdonald Mackay’s (see Chapter 5, p. 73). The educational culture of some disciplines, notably engineering and medicine, and to a lesser extent the physical and some social sciences, adds further external pressure to behave in this way.

Exactly the contrary attitude and behaviour is desirable, no matter what the discipline. Eble calls it ‘generosity’:

Aristotle made much of what is commonly translated as magnanimity, the sufficiency of person or possessions that makes generosity possible …The right attitude toward knowledge is surely a generous one, an attitude powerfully urged from the fact that knowledge, while permitting feelings of acquisition and ownership, suffers no loss when it is shared with and given to someone else. Teaching, by this basic attitude, is always a giving out, always a chance for benefaction. And as to generosity to students, few people are ever hurt by being regarded too generously. The shaky confidence about what one can learn, about how much one knows compared with someone else, needs constant shoring up.

(Eble 1988:207)

Research on higher education unquestionably upholds these views. Among many other studies, Feldman’s meta-analysis of student ratings (Feldman 1976), the Lancaster investigation, and Entwistle and Tait’s research on Scottish students (Entwistle and Tait 1990) all underline the vital importance of respect and consideration for students in effective university teaching.

In fact, truly awful university teaching is most often revealed by a sheer lack of interest in and compassion for students and student learning. It repeatedly displays the classic symptom of making a subject seem more demanding than it actually is. Some people may get pleasure from this kind of masquerade. They are teaching very badly indeed if they do. Good teaching is nothing to do with making things hard. It is nothing to do with frightening students. It is everything to do with benevolence and humility; it always tries to help students feel that a subject can be mastered; it encourages them to try things out for themselves and succeed at something quickly. The humility that every university teacher has felt in the presence of his or her subject, the honest awareness of what one does not know, is exactly the quality we need to display in our teaching. There is again nothing new in this statement; it embodies what good teachers have been doing, and say they have been trying to do, for thousands of years.

Related to generosity are honesty and interest in teaching, versatility in teaching skills, and availability to students. Of critical importance to students and student learning, as we have already seen, is the accessibility of staff for consultation about academic work. And if a teacher is to be generous and available, a sense of enjoyment in teaching one’s subject and the adventures that teaching it presents are indispensable. Teaching like this therefore requires developing a keen interest in what it takes to help other people learn; it implies pleasure in teaching and associating with students, and delight in improvising. Teaching is nothing if it is not enjoying the unpredictable. It is futile to plead that these things are impossible to achieve in a climate of ever-reducing resources. If we want high-quality teaching and learning, we cannot do without them.

**Principle 3: Appropriate assessment and feedback**

Giving helpful comments on students’ work is an equally essential commitment. It is plainly related to our accessibility to students. Of all the facets of good teaching that are important to them, feedback on assessed work is perhaps the most commonly mentioned. ‘Quality of assessment procedures’ was one of the key features of good teaching as perceived by students noted in Marsh’s authoritative review of the student evaluation literature (Marsh 1987); similar factors also appeared in the Lancaster interviews. It is significant that the most salient question— the one that differentiated most effectively between the best and worst courses—in the Australian teaching performance indicator study (described below, p. 100) was concerned with the quality of feedback on students’ progress.

Setting appropriate assessment tasks, as we have seen from students’ experiences, is evidently a difficult but crucial skill. It implies questioning in a way that demands evidence of understanding, the use of a variety of techniques for discovering what students have learned, and an avoidance of any assessments that require students to rote-learn or merely to reproduce detail.

**Principle 4: Clear goals and intellectual challenge**

Principles 4 and 5 form a pair analogous to the ‘rhythmic claims of freedom and discipline’ in education that Whitehead identified. All education may be seen to proceed in a triple cycle of growth, from a stage of absorbing, discursive, romantic discovery, through a stage of precision (which, according to Whitehead, is the sole stage in the traditional scheme of university education) to a stage of generalisation and application, where again initiative and inquiry dominate. The teacher’s task is to recognise these equal claims of freedom and discipline, and their cyclical ordering, without overemphasising one or the other; to create a system in dynamic equilibrium. ‘The real point,’ says Whitehead, ‘is to discover in practice that exact balance between freedom and discipline which will give the greatest rate of progress over the things to be known.’ The implication is that control over learning should reside both with the teacher and with the student.

Research into effective schooling overwhelmingly shows that consistently high academic expectations are associated with high levels of pupil performance. University lecturers should find this aspect of effective teaching relatively straightforward, so long as they remember to make the challenge interesting rather than dull. Romance must never be presumed dead, even when there are definite truths to be learned. What they are likely to have more difficulty with is explaining to students what must be learned in order to achieve understanding and what can be left out for the time being. All too often students begin a university course with only the vaguest notion of what essential concepts they must master. Breakneck attempts to ‘cover the ground’ in the absence of a clear structure focused on key concepts intensify their confusion and deaden their excitement.

**Principle 5: Independence, control and engagement**

High-quality teaching implies recognising that students must be engaged with the content of learning tasks in a way that is likely to enable them to reach understanding. Perceptions of choice over how to learn the subject matter, and of control over which aspects students may focus on, are related to high-quality learning.

Good teaching fosters this sense of student control over learning and interest in the subject matter. It understands the truth of Bruner’s statement that ‘Instruction is a provisional state that has as its object to make the learner or problem solver self-sufficient’ (Bruner 1966:53). It provides relevant learning tasks at the right level for students’ current understanding; it recognises that each student will learn best in their own way; it avoids creating over-dependence. It helps students to understand the essence of scholarship and investigation in their subjects by providing an opportunity for them to practise the art of inquiry. Trying to practise inquiry is the only way to learn how to inquire. It is also a way of arousing the imaginative spirit, differently constituted within each individual intellect, without which deep approaches to learning are impossible. It is impossible to quantify how many students have been discouraged from pursuing the learning of their chosen subjects by denying access to the art and enjoyment of inquiry.

Again, the significance of independence and choice emerges repeatedly in research on student ratings and perceptions of favourable academic environments, at higher and upper secondary education levels. Yet most prevailing systems of learning in higher education adopt mass production standards; they handle each individual student in the same way, although we know for certain that they operate in different ways. Sharp engagement, imaginative inquiry and the finding of a suitable level and style are all more likely to occur if teaching methods that necessitate student energy, problem solving and cooperative learning are employed. These kinds of method permit a degree of student control over learning and can thus accommodate individual differences in preferred ways of reaching understanding, as well as having within them the potential to free students from overdependence on teachers. They are also likely to result in students becoming engaged with what they are learning at a high cognitive level.

The positive effects on achievement of cooperative learning as compared to competitive and individualistic learning are very well established in the educational literature (see Johnson et al. 1981). Tang (1990) reported similar effects for higher education students who cooperated in group discussions in preparing for assignments. They perceived their activity to be useful for understanding the content to be learned and used deep approaches to learning it. These were in turn related to higher-quality learning outcomes.

All this is rather bad news for the traditional lecture, practical class and tutorial, as well as for orthodox approaches to the professional curriculum, as we will see in Chapters 8 and 9. It seems that we often encourage poor learning at university through over-stressing individual competition while at the same time using teaching methods that foster passivity and ignore the individual differences between students.

It is worth stressing that we know that students who experience teaching of the kind that permits control by the learner not only learn better, but that they enjoy learning more. That is surely how it should be in higher education, as in any education; if we love our subjects, we must want other people to find them enjoyable rather than dull. Learning should be pleasurable. There is no rule against hard work being fun.

**Principle 6: Learning from students**

The foregoing principles are necessary but not sufficient for good teaching. Effective teaching refuses to take its effect on students for granted. It sees the relation between teaching and learning as problematic, uncertain and relative. Good teaching is open to change; it involves constantly trying to find out what the effects of instruction are on learning, and modifying that instruction in the light of the evidence collected.

That is the single most important message, the one you should remember if you forget everything else, of the case studies of the two science teachers summarised above. Like Ms Ramsey, a competent teacher should try to diagnose students’ misunderstandings, in class and from the work they hand in, and then set about trying to change them through tructuring the curriculum and assessment correctly. Knowledge about students should be used to select and deploy teaching strategies.

This is what ‘evaluation’ in relation to teaching is about, though the term has gradually become debased so that it applies to the task of collecting data rather than collecting, interpreting and using it—both immediately, in the classroom, and in a more considered way when planning a curriculum. Evaluation of teaching in its true sense is no more or less than an integral part of the task of teaching, a continuous process of learning from one’s students, of improvement and adaptation. Were we to lose all our knowledge about the nature of good teaching, it would be possible to reconstruct every other principle from a complete understanding of this one.

It is not likely that lecturers will find out much from students unless they arrange opportunities for finding out, such as talking to students and studying the products of their learning. We cannot change our understanding of anything, including our students’ learning, unless we spend time and effort learning about it and going over it in several different ways