

COMMENTARY

The adaptive curriculum

MARGERY H. DAVIS¹ & INDIKA KARUNATHILAKE²

¹Centre for Medical Education, University of Dundee, UK; ²Faculty of Medicine, University of Colombo, Sri Lanka

An adaptive curriculum is one that is able to cater for the diverse educational needs of the students. It is part of the move towards a more student-centred approach to health professions' education that began in the 1970s. Harden *et al.* (1984) summarized the student-centred approach as follows: "the student is the central or key figure. Students, under the guidance of a teacher, may decide their own learning objectives, select appropriate learning resources to achieve these objectives, decide the sequence and pace of their own learning and are responsible for assessing their own learning process."

In many medical schools, however, the educational programme is still uniform. Tomlinson & Kalbfleisch (1998) reported that the traditional one-size-fits-all curriculum can be harmful by demotivating the students at the extremes. The extremes may be thought of in terms of faster or slower learners according to the length of time required by a student to master a particular unit. Repeated unsuccessful attempts at the examinations can erode the confidence of slower learners and lead to dropout, increasing the attrition rate. Some educational systems allow students who have failed exams to progress to the next part of the course but to 'carry' the failed subject, i.e. to continue to study it and to resit the examination at a later date. This seems illogical as it places increased pressure on the slower learners by allowing them to accumulate subjects to be studied, when what they probably need is increased support. Other educational programmes make provision for students who have failed examinations to study during vacation time. This practice may also lead to increased stress either from loss of leisure time or from loss of revenue at a time when many students are required to support themselves through medical school with paid employment at weekends and holidays. At the other extreme the faster learners may feel unchallenged and become bored by the standard pace of learning.

The adaptive curriculum acknowledges that students are not a homogenous group but differ in their preferred learning styles, interests and abilities. Provision of a range of educational opportunities and allowing students to select those that best suit their learning style (Harden *et al.*, 1997) caters for different learning preferences. The General Medical Council (GMC) in the UK highlighted the capacity of student-selected components (SSCs) and elective appointments to accommodate the diverse interests of students (GMC, 1993).

Catering for different levels of ability is somewhat more complex, however. Lawrence Cremin (1980), the American historian of education, suggested that "You can evaluate an educational system by the attention it gives to its extremes". How does medical education cater for the extremes, i.e. faster and slower learners?

Fast-tracking is one option suggested to accommodate faster learners. Leading surgeons have called for a rethink in training to allow high-flying juniors to be fast-tracked to the consultant grade (Royal College of Surgeons of England, 1999). In primary and secondary education curriculum compacting has been suggested as a way to accommodate faster learners. Curriculum compacting consists of three phases: defining the outcomes of a given unit; identifying students who have mastered the outcomes; and providing acceleration and enrichment options for them (Reis & Renzulli, 1992).

On the other hand, slower learners may take longer to achieve the required standard. There is, however, no evidence that they will not be adequate doctors. Although Hunt *et al.* (1987) showed significant differences in the quality of interaction with patients between graduates who had academic difficulties in medical school and those who did not, they concluded that many students who experienced academic difficulties in medical school eventually perform adequately in residency programmes. Weston & Dubovsky (1984), who evaluated the performance of the graduates from a USA medical school using postgraduate year 1 residency evaluations, found that those who had academic problems at medical school performed only slightly lower than the average level.

The challenge is how to give more time for slower learners to achieve the required standard. Several approaches have been reported to date, mostly from the USA. In this issue of *Medical Teacher*, McGrath & McQuail (2004) report on the availability of decelerated options in US medical schools. A decelerated programme enables selected students to spread the highly compressed work of the first year of the medical education programme over two years. Deceleration may also involve the second year. Applicants may be invited to enter the programme if, on selection, they show great promise but present cause for concern because of academic weaknesses or

Correspondence: Dr M.H. Davis, Centre for Medical Education, University of Dundee, Tay Park House, 484 Perth Road, Dundee DD2 1LR, UK. Tel: +44 (0)1382 631971; fax: +44 (0)1382 645748; email: m.h.davis@dundee.ac.uk