



A community eye health worker in Afghanistan

Photo: M Murtaza Farrahmand

These now have to be fitted into a timetable. As you do this, you have to keep the following in mind:

- The material must be presented in a logical sequence. This means two things:
 - * Firstly, we need to group things together that belong together. For example, we group everything around trachoma together: the causative organism, epidemiology, prevention, treatment, etc.
 - * Secondly, some things have to come before others. For example, students need to learn basic optics before they learn to do refraction.
- You have to fit into the time available for the course. Somehow there is always too little time – which means that you have to prioritise. Some learning objectives have to be left out, or made shorter. You also have to avoid unnecessary duplication and repetition.

Curriculum Reform and the 'SPICES' Model

Curricula are always changing, as teachers try to remain up-to-date and to eliminate problems. Over the last 20 years, however, there have been strong movements in many countries, to improve the quality of training of health workers. Harden et al. (1984) describe these changes as follows:

- **Student centred:**
The most important consideration is that students should learn excellently. Teacher convenience and status come second.
- **Problem based:**
Students learn to solve problems (clinical and management ones) rather than just memorising facts.
- **Integrated:**
We now teach many subjects together – all those parts which deal with a specific problem. We no longer teach separate 'subjects'.
- **Community based:**
Students learn new knowledge and skills in community settings, and not just in large hospitals as in the past.
- **Electives:**
The curriculum is not completely fixed – students get some opportunities to pursue their individual interests.
- **Systematic:**
We make sure that students learn to manage all important problems, by planning practicals carefully. We no longer just put them into the ward (or clinic) and hope for the best!

You will notice that the first letters of the six words spell 'SPICES'. This is a good checklist, to evaluate our present curricula and to see where we may have to change.

In the next article in this series we are going to discuss the assessment of our students – how can we find out if they have learnt what they should learn? Watch this space!

- You have to consider the teaching methods you are going to use. For example, practicals take more time and need more teaching staff
- You have to consider the facilities that are available for training. If your own institution cannot offer enough places for practicals, students may have to travel to other sites.

References

- 1 Abbatt F, McMahon R (1993). *Teaching health care workers*, second edition, London: Macmillan, pp.26-37.
- 2 Harden R M, Sowden S, Dunn W R. Educational strategies in curriculum development: the SPICES model. *Medical Education*, 1984; **18**: 284-97.

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Problem Based Learning (PBL)

In traditional training courses the teachers work out what the students need to learn, and systematically make sure that they learn it. PBL is different. As its name says, this method bases all learning on problems. It works like this. There are no lectures. Instead, the students are presented with a problem – usually a clinical one. Working in small groups, and under the guidance of a tutor, the students themselves work out what they need to know, and what skills they need, to manage this problem. They then go to the library, and to the wards and clinics, to learn the necessary knowledge and skills.

For example, one problem may be that of a patient with entropion and corneal scarring. The students work out that they need to learn about the clinical course of trachoma; the causative organism; its treatment (medically and surgically); its prevention (improved water supply and sanitation, community participation, etc.); its epidemiology; other causes of corneal scarring; and so on. This one problem, therefore, makes the students learn a large number of topics and skills.

The teachers still have to work out the content of the curriculum. But by carefully selecting the right problems, and enough of them, they make sure that students will cover the whole curriculum. The difference is that the students themselves 'discover' what they need to learn, rather than being given all the information by their teachers.

PBL has several advantages above traditional courses:

- Learners learn how to solve a problem by themselves, in a systematic way. This means that they can do it again in future, when they are faced with a new problem.
- The learners only learn what is needed to solve the problem. There is less danger of learning a lot of unnecessary information.
- Learners learn deeply rather than superficially, because they are actively involved.

CORRECTION

Teaching and Learning Detlef R Prozesky

J Comm Eye Health 2000; **13**: 60-61.

The Editor apologises that in the two tables on p.60 'tarsorrhaphy' should have read 'tarsal rotation'.

The DU-AL Corporation

John Sandford-Smith, in his letter in the last issue of the Journal (**13**: 62), referred to the uncertainty facing the DU-AL Corporation.

This company has now been acquired by:

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