



Seminar on Planning and Implementation
of Teacher Training Programmes

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PLANNING AND IMPLEMENTATION OF TEACHER TRAINING PROGRAMMES

by

Dr W.D. Clarke
Director, BLAT Centre for Health and Medical Education
British Medical Association
London, United Kingdom



1. Focus of the seminar

The aim of the seminar is to identify ways in which the standards of medical teaching can be improved. As this is an international and not a national conference, it must be borne in mind that the milieu (i.e. the physical and social environment) in which educational programmes take place differs from country to country. A consequence of such differences is that, while it is possible for one country to learn from another, the detailed action plan that each forms to promote improvements in medical teaching can only be devised by that country. With this proviso, then, one way of proceeding might be to examine the successful innovations that countries have made to see to what extent they are transferable.

Reinventing the wheel is a popular pastime, but while human life is at stake it must surely be regarded as a wasteful one. Within countries the various educational sectors, for example primary and secondary school, university, medical school, rarely communicate with each other, so that they frequently duplicate each other's efforts to a quite remarkable degree. A gross example would be the current obsession in some countries with devising statistically sound formulae for scoring multiple-choice questionnaires. Those medical teachers engaged in this pursuit seem to be ignorant of the efforts of their colleagues in other medical schools years before and, for that matter, of the fact that educational testers such as Binet were investigating the same problem in the late nineteenth century. Thus, another profitable exercise might be for medical educators to survey what other educators have achieved in their own country and possibly what has been achieved at the international level as well.

A third area of investigation would be created if it were realized that it is possible to learn from mistakes. It has been wisely said that "He who does not learn the lessons of history has to repeat them". The history of innovations in medical teaching that have attempted to bring about improvements shows that many of them failed because insufficient attention was paid to the problem of getting them implemented or disseminated (see Annex I). A WHO consultation in 1978 devoted some time to identifying the obstacles to better coordination between health services and health manpower development. It could be profitable to identify the obstacles impeding the implementation of ideas that have been demonstrated to be of value. Even the most casual glance at history reveals that almost all the innovatory effort has been devoted to the innovation itself, whereas implementation has been starved of funds, research and effort.

Bearing in mind the three areas of investigation listed so far, the probability is that a seminar that took as its major theme "Improving medical teaching by formulating plans of action to overcome obstacles to progress" might be the most rewarding.

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The seminar should therefore concentrate on identifying the obstacles to progress and formulate general plans to overcome them. Any discussion should include an investigation of what can be learnt from medical education in other countries and what other disciplines, especially that of education, can contribute.

2. Facilitating change

Good front-line soldiers are a necessary, but not sufficient, prerequisite for a successful army; the commander who has got the logistics of his campaign right is most likely to be the one on the winning side in any battle. Similarly, if an attempt is made to improve medical teaching merely by constructing a new film or learning experience, it should not come as a surprise if no improvement occurs. Getting the process or logistics of change right means taking appropriate action at two levels, and possibly three, if it is an international affair. Successful innovation is dependent upon appropriate action being taken at several different levels of decision-making. The lowest level in the hierarchy is that of the individual teacher, the next is at departmental level, the next at institution level and the highest at national level.

Action at the national level needs to be taken in at least two areas, namely, at the level of State officials and at professional level. In some, if not all, cases it is probably also beneficial to attempt to modify public opinion. Such action can be loosely described as "political" action, in that the aim is to create a climate in which educational reform can flourish. It is necessary to isolate the factors which prevent medical teaching being based upon community needs and which prevent health services from being planned along with health manpower developments.² This involves identifying those officials and agencies responsible for decision-making and planning an education programme for them. It means promoting the idea of continuous education throughout the undergraduate, postgraduate and continuing education levels. It also entails raising the general level of public knowledge. As Taylor³ has pointed out, "The skill comes in separating out those reforms that can and should be brought about by legislation and resource-distribution from those, however, desirable, that can only follow changes in the climate of ideas".

Institution level and departmental level can in some cases be treated as one, but it all depends on where the real power is to be found or how that power is distributed between the university senate, medical school, faculty and department. The distribution varies from country to country and between medical schools; in some instances the health authorities, such as regional hospitals which are used by the university for teaching, form yet another power block. Furthermore, two medical schools operating under the same national legislation can differ in their distribution of power because of the personalities of the people who exercise that power. Unless everyone at all these levels is convinced that change is necessary or is at least prepared to be tolerant of change, improvements in medical teaching are doomed to failure or are likely to be only partially successful.

Finally, there is the level at which the teacher operates as the key decision-taker. It is at this level that almost all the effort to improve medical teaching has been made. There has been almost an obsession with bringing about changes in the technology of teaching, e.g. courses whose primary aim is to instruct teachers how to make tape and slide programmes or to design multiple-choice questionnaires. Katz² has drawn attention to the fact that "the effectiveness of an educational programme depends on the appropriateness of the physical and social milieu of a given educational institution". Again, action has to be planned that will create a better climate for change. Miller⁴ points out that although curriculum committees may feel they have done their duty when they have planned an objectives-based community programme, students will not be deceived about the importance of community orientation if the major departments remain hospital-based and the time given to community medicine is comparatively meagre. He continues: "... or to take another illustration of how good ideas can go wrong we might reflect upon the use of audiovisual technology ... the enormous waste in manpower and money that has attended many efforts to introduce television-programmed instruction, computer-aided learning and other potentially powerful technical tools into medical education. With few notable exceptions, audiovisual technology seems more the creature of enthusiastic promoters than of sober educators trying to match technical marvels with learning needs". So-called problem-based curricula are often no more than a reorganization of the ways in which teachers teach, rather than a fundamental reorientation of the ways in which learners learn. It is necessary to examine the role of teacher training courses, workshops and exchanges. It is also necessary to consider if and how university departments of education can be utilized. The ways in which educational departments in Poland, Sweden, Switzerland and the United Kingdom operate might profitably be studied, as might those in other countries not so well known to the author. This is yet another example of the necessity for planning or managing the logistics of improvements in medical teaching.

In some instances international action can help to bring about improvements, especially if such action is closely allied to national policies. Perhaps now, as the nineteen-eighties approach, it is time to evaluate what international agencies such as WHO have achieved, and to consider their role in the future. What is the role of conferences and workshops? Should there be a continuing series of conferences rather than isolated meetings? What are the advantages and disadvantages of teacher exchange? Is there a place for an innovation experiment that is common to many countries? Would comparative studies of teaching improvements be profitable?

If the seminar is to concentrate on identifying obstacles to improvements in medical teaching then one way of proceeding might be to consider the obstacles that exist or can exist at the different levels at which decisions about proposed improvements must be made. The issue that is of major concern is not innovation but implementation.

3. Implementation and innovation

Medical education is not alone in turning its attention to the problems associated with implementing innovation. Becher,⁶ writing about higher education in 1971, said: "The early 1960s then, taught the new agencies concerned with educational change a good deal more about the ways to develop innovations than about the ways in which, once developed, they might most effectively be implemented. The problem of innovation was in fact hardly recognized as a problem - it was simply assumed that successful adoption would follow logically and inevitably from successful initial development and trial, and subsequent revision and mass production". UNESCO⁷ and the Council of Europe⁸ have, in effect, come to the same point of view as Becher and started to look at implementation as an issue in its own right.

Ellis⁵ has produced a list of principles which are now known to be necessary for good teaching. Among those he lists are: course flexibility, options and electives; individual knowledge of student capability and attitudes; suitable learning and teaching space; the use of curiosity, critical thinking and self-learning and therefore problem-solving in a clinical setting; and appropriate evaluation instruments. He says "We know how to make better teachers and that we must make good teachers out of good doctors. We know that bad doctors who are good teachers can do incalculable harm. We know that those teachers who teach medicine must continue to practise medicine".

When the world medical scene is surveyed it is relatively easy to find teachers who have successfully found ways of putting the principles described by Ellis into practice. An analysis of why the innovations were successful would be most helpful in providing lessons from which other teachers could learn. Equally, an analysis of why other innovations failed could also be helpful. The various associations of medical education, and especially the Association for the Study of Medical Education in Europe, have done extremely valuable work in disseminating news of innovations among medical teachers. What is needed now is to consider how to spread this knowledge to the other levels at which decisions are made.

Summary and proposal for seminar

In the educational world as a whole there seems to be common agreement that until the problems associated with the implementation of innovation have been solved, many future innovations are doomed to failure. Thus, the most rewarding way of investigating how medical teaching can be improved might be to postpone for a time the development of yet more new approaches to teaching, and to concentrate on ways of ensuring that existing knowledge is disseminated more widely. In short, the Seminar could concentrate on implementation, not innovation, as a way to improve medical teaching (Annex II).

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THE PROCESS OF DISSEMINATION

1. Components of dissemination

(a) translocation

- movement of people and materials required to implement improvements in teaching,
e.g. Should teachers attend courses?
Should there be teacher exchange?

(b) communication

- passage of information about innovation from one person to another

(c) animation

- the need to provide a stimulating and motivating environment for change

(d) re-education

- considerable understanding and commitment are required for effective implementation,
e.g. rapport between implementers and innovators

2. Targets for dissemination

(a) teachers

(b) support agencies

3. Phases of dissemination over time

(a) receptivity

- preparing the environment for change

(b) adoption

- getting decisions made to try out the innovation

(c) implementation

4. Modes of dissemination

e.g. written materials, workshops, personal contact

5. Control of dissemination

relationship to examination system

6. Maintenance of dissemination

- the establishment of mechanisms to ensure survival after initial period of experimentation and provision for feedback from users to innovators

EDUCATIONAL STRATEGIES

The educational strategies adopted by UNESCO over the last 10 years have gone through three stages of development because of developments in ideas about educational technology.

Period	Conception of educational technology	Who	Objectives	Content	Approach
About 1967	Audiovisual aids	Technicians	Technical and practical skills	Production Maintenance	By-media approach
Up to 1975	Methods, materials and techniques	Specialists	Optimization of the teaching/learning process through media	Definition of objectives Elaboration of programmes	Curriculum-oriented approach
Today	System analysis	Groups	New attitudes New approach	Critical evaluation Group awareness	Study of problems and their solutions Optimization
Tomorrow	?	?	?	?	?