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TEACHING THE TEACHER

Six years ago the Goodenough Report observed that "too little attention has been paid to the training of teachers of medical students," and suggested that the intending teacher might benefit if he received some instruction in this difficult art. In last year's Educational Number Professor R. W. Niblett contributed a short paper on the training of the teacher, and in a leading article in the same issue of the *Journal* comment was made that "it is unusual, to say the least, to find so plainly stated the need to improve the teachers as well as the taught and the teaching." This stimulated Dr. R. D. Lawrence to suggest in a subsequent issue that there was need for a school for medical teachers, a suggestion made in this *Journal*[1] by Dr. Ffrangcon Roberts in 1944. During the past year many teachers of clinical medicine have been discussing their training as teachers, and the subject was debated at a meeting in Bristol attended largely by members of the Royal College of Physicians. Dr. Lawrence's contribution to this debate is included among a number of articles published this week on the methods and techniques of teaching.

As Sir Henry Cohen points out, recent reports and articles on medical education have been concerned almost entirely with the content of the medical curriculum, and too little attention has been paid to methods and technique and to the selection of teachers. The purpose of teaching, Cohen notes, is not only to transmit knowledge but to stimulate the student to think. Dr. Johnson's account of how he was taught as a medical student 25 years ago, and the article by an anonymous medical student—from a different hospital—suggest that at least in some of our medical schools the system of teaching does neither of these things very well, or at least not well enough for training the student in the general practice of medicine.

While many would disagree with Dr. Roberts's projected school for medical teachers if it were a permanent institution, few would deny that the young man or woman appointed to the teaching staff of a hospital would benefit from some pedagogical instruction. As Professor Niblett observed last year, the doctor in training and the teacher in training have much to give one another. We should therefore go to those who make a special study of education and see what help and advice they can provide us. In our opening pages Dr. J. A. Lauwerys, professor of comparative education in the University of London, and Mr. G. P. Meredith, professor of psychology in the University of Leeds, have set down for the benefit of those who teach medicine some of their observations on the technique and art of teaching. As Professor Lauwerys suggests, the problems of teaching and what is taught cannot be separated from a consideration of the times in which we live and the shifting scenes of social and scientific thought. "All teachers," he says, "face problems which arise through the adoption by statesmen and Parliament of policies the roots of which lie elsewhere than in the sciences." One result of these policies is that more boys and girls are seeking higher education. They come, Professor Lauwerys points out, often enough from homes which may have a poor educational background. They have not acquired the habit of reading "or of individual self-directed study." Their anxiety is more to acquire knowledge to pass examinations than to become educated in the widest sense of the word. But Professor Lauwerys adds the comforting observation that they are not less intelligent than students of previous generations. An awareness of the conditions of life and the social background of the modern student is essential if the teacher is to choose wisely methods and techniques which will not only instruct the student but bring out of him the best he has to give. In medicine, especially, the length and burdensome nature of the curriculum, and the economic anxiety to pass a series of examinations at the first attempt, put a premium on cramming and encourage passive reception of facts and figures and so-called theories. This, too, encourages the lazy or indifferent teacher to use the method which Professor Lauwerys describes as one "involving mainly chalk and talk," instead of what he calls "activity methods." The essence of these is that students are encouraged to solve certain problems themselves, a method intended to encourage purposive mental activity. Professor Lauwerys suggests that students could learn by attempting to find answers to questions by experiment.

An account of an attempt to use this method is given by Dr. Andrew Wilson and his colleagues of University College, London, in which they describe how, as part of the pharmacology course, students, under the supervision of instructors, tried the effects of various drugs on each other. "We consider," they state, "that the outstanding advantage of this part of the practical class is that the student experiences at first hand the effects of certain drugs and learns to assess some of the qualitative and quantitative changes produced." This

[1] *British Medical Journal*, 1944, 1, 728.

experiment of Dr. Wilson and his colleagues would seem to be an admirable example of an "activity method" in the teaching of pharmacology, and at a time when this is a subject of such rapidly growing importance it may be hoped that other schools will try the same method. If it were widely adopted its influence on the future practice of medicine would be considerable.

The modern teacher now has many technical aids at his disposal, some of which are discussed elsewhere in this issue. Professor Lauwerys makes the interesting observation that these new ways of imparting information come from the oldest of all methods—the drawing, the painting, the hieroglyph. When books were scarce and television and the filmstrip undreamt-of, the lecture had perforce pride of place in the teaching process. Any student not possessed of a photographic memory or the ability to write at the speed of shorthand was able to transmit only some of the information to his notebook. Too often he was torn between the desire to listen and the obligation to scribble down facts and figures. Surely the time has come when *all* students should be given in advance of the lecture cyclostyled notes containing the main facts, and should listen to the lecture with the aim of enlarging their comprehension of them.

On the art of "putting it across" Professor Meredith has many wise and witty things to say. His vivid description of a few outstanding lecturers who have influenced him would seem to demonstrate that there are no short cuts to effective lecturing. From his own experience he concludes that the one quality that is desirable in a lecturer is vitality, which he defines as "a force which is called up by the joint challenge of a topic and an audience, a challenge which stimulates the organizing capacity of the man's mind to draw upon whatever material and mental resources he has." It is obvious that some knowledge of the technique of lecturing would help the inexperienced to avoid the mistakes referred to by various writers in this symposium; and it is equally obvious that no educational device or trick of lecturing will turn a bad lecturer into an inspiring one.

From his experience as a professor of education Dr. Lauwerys is opposed to any systematic instruction of the university teacher in the art of instruction. He suggests that every beginner should be given the chance of having an experienced teacher attend his lectures during the first year. It would, too, he believes, be an advantage if departmental heads were to have regular conferences with their staff at which they could discuss educational and pedagogical problems. His last proposal for helping the young teacher is the holding of week-end meetings of the staff in one of the many conference homes now available. It is much to be hoped that some of those responsible for medical teaching will take the initiative in trying out some of the suggestions made by Professor Lauwerys. It seems evident that, though there may be exceptions in this school or that, the present methods of teaching medical students are unsatisfactory. If the methods were reformed it might be easier for some teachers to become more accomplished in their performance.

DOCTORS AND POPULATION

The average population served by a medical practitioner varies greatly between one country and another, and has to some extent varied in Britain during the last 50 years. The *Medical Directory* includes a table which shows the numbers of doctors whose addresses are recorded as being in England and Wales and in Scotland when the volume is made up each year. Other particulars are given also, but it is these that are analysed below. The figures for Northern Ireland and Eire are tabulated together, but since conditions differ in the two countries it was thought desirable not to use them in the comparisons made here.

The numbers of doctors tabulated in the *Medical Directory* are not an exact account either of the number of doctors practising or of the number of doctors living in England and Wales and in Scotland. For various reasons a few doctors do not have their names recorded in the *Directory*. On the other hand, some of those recorded are retired and therefore ought not to be counted as serving a population. The difference between these figures is unknown.

The figures for populations in Tables I and II are derived from the Registrar-Generals' publications and are for civilian populations. They are given in thousands to the nearest thousand. Although the figures for population per doctor in Table I and for population per general practitioner in Table II are not exact, they are probably correct to within a hundred.

TABLE I.—*Medical Practitioners and Population in England and Wales and in Scotland*

Year	England and Wales		Scotland		Population per Doctor	
	Doctors	Population in Thousands	Doctors	Population in Thousands	England and Wales	Scotland
1901	23,501	32,413	3,569	4,464	1,379	1,251
1910	25,398	35,792	3,947	4,739	1,409	1,201
1920	26,619	37,596	4,544	4,864	1,412	1,070
1930	31,936	39,801	5,905	4,828	1,246	817
1939	37,429	41,460	6,091	5,007	1,108	822
1949	45,547	43,785	8,607	5,175	961	601

It is clear from Table I that during the last 50 years there has been a higher proportion of doctors to the population in Scotland than there has been in England and Wales. The difference cannot be accounted for by the fact that a higher proportion of people qualify as doctors in Scotland, and that some of these subsequently