

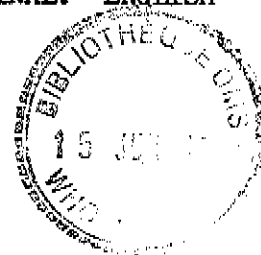
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OBJECTIVES IN TEACHING MEDICINE

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OBJECTIVES IN TEACHING MEDICINE.

All courses of instruction are designed to help students acquire certain attitudes, knowledge and skills. It is essential that an attempt should be made during the planning stages in any course of study to analyse and detail the objectives and thus the learning experiences needed to achieve the objectives. This is a difficult task to carry out successfully but as Wiseman (1961) shows, a teacher who attempts such an analysis is never quite the same again.

Aims and objectives.

Aims can be thought of as general declarations of intent which give both direction and shape to a teaching programme. They stem from the teacher or school's own convictions although they are difficult in fact to specify. For example, an aim in medicine can be to a feeling of wanting to care for the patients. Another aim is that knowledge of medicine should be wide and deep, for many varied problems are dealt with in patients. Also practical instruction should be given to the student and he should see senior doctors working with patients. Aims like these are inspirational and teachers have to look for ways of translating them into practice, for as stated overall they are quite inadequate. For example, it is important to develop in the students an appreciation of the whole field of medicine and the relation of the doctor and patient. Without having much idea of how to achieve it or even see if it has been achieved, it is necessary to translate the aims of a project from grandiloquent phrases

into detailed descriptions of the kinds of behaviour which the teachers are hoping to achieve and examiners are prepared to measure as evidence of learning. When aims are refined to this level of specificity they become objectives.

Perhaps a distinction can be made usefully here by drawing a distinction between what medicine the teacher is teaching and what he is trying to achieve when he teaches this. Eggleston (1965) has pointed out that aims are expressions of strategy while objectives are essentially tactical in character. They are best expressed in the jargon of programmed learning "The terminal behaviours of the people". That is to say an account of what the student should be able to do at the end of the course of study in terms of remembering, thinking and understanding with respect to certain areas of medicine. Historically, Europeans have been fonder of stating aims and objectives, while Americans have been prone to try to convert their sonorous declarations of intent into objectives.

It is interesting that the development of the definition of objectives is related to the dominating psychological theory of the time. In 1900 'faculty psychology' held sway. Here the mind was believed to consist of certain faculties such as memory and reason, which could be trained or disciplined by proper exercise. In this type of curriculum objectives of the school were stated in terms of the faculties to be trained and the learning experiences were those exercises in medicine which were supposed to yield particular

opportunities for memory and reasoning. Hence the emphasis on anatomy and learning subjects by rote.

With the decreasing acceptance of the theory of formal discipline and the discrediting of faculty psychology, the prevailing view became increasingly behavioural. Between the two World wars educational objectives came under the influence of the associationist school of psychologists led by Thorndyke, who believed that each response depended on the content of the stimulus offered and rigorously denied the possibility that improvement in any mental function could bring about an equal improvement in any other function no matter how similar. If every sign and symptom was viewed as a different stimulus, then the student in medicine was to learn many thousand responses for achieving a very little knowledge. However, quite soon after this development the formulation of other theories of learning which embraced the phenomenon of generalized behaviour allowed educational objectives to be stated in the behavioural terms now used.

Thus the decision to couch educational objectives in behavioural terms implies a particular view of the educational process. In it 'education' means changing the behaviour of a student so that he is able when encountering a particular problem or situation to display behaviour which he did not previously have. The teacher's job is to help the student to learn new or changed behaviour patterns and to determine where and when they are appropriate. As Krathwohl (1965) has pointed out, this approach to instruction fits in very well

with the behaviourist school of psychology - a movement which is also responsible for the rationale of the teaching machines and programmed instruction. It is not surprising that renewed emphasis on educational objectives has grown out of the development of programmed learning. Here careful specification of a step by step procedure for the learner calls for clearly understood objectives specified at a level of detail far beyond that which is usually attempted.

Stating objectives appropriately for programme, for curriculum and for instructional materials development.

Furst (1957) has suggested the following rules for developing objectives:-

- 1) State objectives clearly in terms of behaviour.
- 2) State each objective at the right level of generalisation.
- 3) Be sure objectives do not overlap.

He also stipulated certain requirements to be observed when stating objectives:-

- 1) They should include all the important aspects of behaviour related to the problem evaluation.
- 2) They should specify the kind of response that may be accepted as evidence of these aspects of behaviour.
- 3) They should specify the limiting conditions under which these responses are likely to take place.

In any teaching programme the large number of objectives makes a cumbersome list. It is thus customary to classify them

under such headings as 'knowledge', 'skill', and 'attitudes'.

One of the most useful classifications of objectives to emerge is that of the taxonomy of educational objectives of Bloom (1956). Perhaps the messianic fervour with which it has been hailed in some schools has diverted attention from the fact that apart from one study by Kropp and Stoker (1966), little attempt has been made to validate the assumptions on which it rests. Nevertheless, the fact that it initiated numerous enquiries into the nature of achievement in all educational fields indicated how stimulating this classification has been. It is interesting that the generic term, taxonomy, was carefully chosen to indicate that the classification of objectives possessed certain qualities and there was a hierarchical arrangement in the taxonomy. There is no doubt that even using Bloom's taxonomy, the problem of stating objectives in medical education has many practical difficulties. Although Bloom's taxonomy claims to rest on no particular psychological theory, the fact remains that doctrine of stating objectives does rest on a particular view of education which many may find unpalatable or at least of dubious taste. Nevertheless, it is as important in medical education as elsewhere to show that this system has more to offer and at least create the impression that it has an influence on the teacher's consciousness.

The great virtue of the objective approach lies in its power to make the teacher aware of what he is doing and thus encourage him to ask why he is doing it. Not only is it important to state

objectives, but the job of helping the students to attain them remains a pressing problem always. The next step is to provide practical assistance to teachers to try to find instructional methods which efficiently and effectively permit the achievement of these objectives. Lessinger (1963) has made an analysis of the factors he believes are involved in the learning process. In a detailed two-way breakdown he plots the taxonomy objectives against three major variables:-

- 1) What students do.
- 2) What teachers do.
- 3) The appropriate organization and location.

Taylor (1967) has developed a promising model of the curriculum which depicts learning experience as the interaction of three dimensions:-

- 1) Knowledge of subject matter.
- 2) Teaching method.
- 3) Behavioural objectives.

This appears to stand up well when it is called upon to represent different types of curriculum and certainly these models are beginning to influence educational planning.

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