

THE VETERINARY EDUCATION. I. PREPARATION OF THE VETERINARY TEACHER

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SUMMARY

The qualifications of the University Staff at the time of the first appointment, the inservice training of the staff members, general relationship between teaching and research and the requirements of good University teaching were discussed on the basis of the study of the teaching requirements in modern Universities and on interviews with 110 experienced University teachers. A particular attention was given to the needs of, and conditions present in, developing countries.

It is suggested that a suitable preparation for teaching could be obtained through the post/graduate course -, or combined course - research -, degrees and that this should be supplemented by the supervised inservice training in the subject selected. The whole process can be completed by a piece of planned research. The basis for the efficient teaching is formed by the thorough knowledge of the subject as well as the individual rethinking and organization of the material.

INTRODUCTION

The Veterinary Education at every level is the primary concern of the Veterinary Division. What is more, it acquires a special importance in a tropical country, beset with epizootiological problems, which is also rapidly developing its natural resources and in times in which so many scientific advances are included in our every day experiences. Further in Tanzania there are many, very different from each other, habitats each of them presenting specific veterinary and animal production problems.

On the other hand, although there is no lack of literature related to the basic educational topics and on the curricula of the modern Veterinary Schools, nevertheless the Veterinary Education in the tropics and particularly in Africa was never properly discussed or analysed.

Professional educationalists, - the people who work in the Education Departments are of a limited help to us. They busy themselves with the philosophy of education or are technicians concentrating on the transmission of knowledge. So as far as the sciences are concerned they can be compared with the people who think about producing a jug and about the techniques of pouring its content out, but seldom, or only to a limited extent, about the contents of the jug itself. For this reason they are most efficient in the areas in which the educational content is general such as in the primary and secondary schools, and, consequently, so more the subject is specialized or the higher is the level of education

the smaller and smaller are their contributions to it. The implications brought about by the complexity of the Veterinary Sciences, by various applications and uses, or by the increasing scope, of the knowledge and by its ever changing character must be analysed and, when necessary, solved by veterinarians themselves. The Veterinary Education is thus one of veterinary problems.

Within the scope of the Veterinary Education there exists naturally the subdivisions; the most general of them however, an essential one, is the preparation of the lecturer, so if I can use the previous simile again the filling of the jug with a proper content. This is also the specific task for the Veterinary Schools and Veterinary Departments.

The second area of the Veterinary Education covers the relationship of the Veterinary Science to, the overlapping with them, other subjects such as medicine, science and agriculture; the third the specific requirements of the individual subjects, the fourth the content of curricula, than the scope and level of the undergraduate teaching and the fifth the special requirements of the place, time and that of economic conditions. The latter is in fact the waving of the profession into the structure of the society. Naturally all of these areas have many common topics and cannot be delineated sharply against each other.

The present paper deals with the preparation of the veterinary teacher and is directed specifically to the conditions present in Africa.

Material and methods

The following studies on Veterinary Education are based on the analysis of the structure and that of practices in the American, European (including British), Australian and African Veterinary Schools, and on interviews with 110 University teachers from the above continents as well as from Asia (Japan, India, Pakistan, Bangladesh). All scientists interviewed have been teaching in the University of at least two countries, and all were familiar with Africa.

2 TRAINING IN TEACHING SKILLS

The nowadays prevalent view that teachers are made not born is certainly true, but only at the lower level of teaching. For the higher level of education the intellectual qualities of the teacher are the most important. In the present day global situation, which is characterized by the great numbers of students, practical bend in teaching, and a limited time for the undergraduate studies, the familiarity with the communicative skills is useful. On the other hand the students can benefit more from the outstanding qualities of their Professor during personal contact, in the apprenticeship type relations of old, or in the small groups. The remarks below are related only to the undergraduate level of teaching and to instructions on the practice of teaching. It is obvious that most of the teaching skills are easy to learn and that individual criticism and private discussions, in majority of cases, would be a sufficient instruction medium for a staff member, however, short courses of instructions can be also useful. These should be limited to common sense rules, familiarity with visual aids and other similar matters, although some discussion on the organisation of a lecture could also be included.

It must be remembered that such courses deal with the non-cognitive factors and at the University level, the progressive teacher is only such an academic which advances his knowledge about the subject. In the secondary schools the accent may be placed differently. Perhaps one of the propositions received that the teaching on how to motivate the students be included in such courses exemplifies well the confusion in these matters. The instruction on the teaching practices could be implemented in the form of workshops, seminars and practicals in which some real situations can be analysed by the participants. One week put aside for this purpose is sufficient.

The essential preparation for teaching at the University level is, as always was, the knowledge of the subject. Not the rudiments of it but the subject in depth. And to secure such a knowledge is much more difficult than to learn a few teaching technicalities. It must be remembered that all communicative skills come to naught if the knowledge of the subject is deficient, and also that the possession of such knowledge by the lecturer is taken too often for granted.

In this connection the points which should be considered are: the qualifications required for the academic teacher at the time of his appointment and the in-service training after the appointment.

3. QUALIFICATIONS AT THE TIME OF APPOINTMENT

The academic staff members are usually requested to teach and to occupy themselves with rather comprehensive subjects. They must therefore be reasonably prepared for their tasks or, if they are not, to receive tuition during the service. The following remarks apply to the staff members on their first appointment. The position of those who have already been University teachers for some time may be different.

Preparations for the University career vary. They include such methods as the encouragement of the students with suitable aptitudes and personalities and leading them through various preliminary stages such as students tutors, to the more complicated teaching engagements and the postgraduate studies. This approach can still be found in Continental Europe where, as a rule, the people join the University Community by invitation. These are the people who, by large, fit well into the ways of the University. On the other hand in the American and British circles the stress is laid on the impersonality of the total marks obtained. The element of a suitable personality is missing and some people enter the University life more for the reason of the career than that of the vocation.

In many developing countries, the shortage of man-power, on one hand, and the fast growth of the University on the other, often lead to the belief that the majority of the graduates possess a good measure of scientific abilities and of scientific inclination. Such views of course, cannot be sustained for any country in the world.

In fact only those should enter the University life who are prepared to persist with efforts for a long period, to accept a slow progress and to enjoy the intellectual satisfaction. And on the long run the above mentioned attitude is also the best policy for the University. Able people with a different make up

will always find many openings, which will offer them faster progress than the University and an easier, as well as prestigious, life. More, their talents are needed there also. In this connection, therefore, it would be advisable to consider the future life of the intellectually and emotionally suitable students. It may be, for instance, that they could be posted in the Tanzanian conditions to the University during their government bond-period. However, further discussion on this topic is beyond the scope of this paper.

This brings us to the preparation of the prospective teachers after graduation. Here again the approaches differ. Thus, in Continental Europe the post-graduate degree is based on the research project in the main subject, and on the non-research study in the same subject and in two other, supporting, subjects. For certain degrees also a test of proficiency in teaching is required. In this way some measure of a broader education is usually obtained.

In Great Britain the postgraduate degree, as a rule, is based on research, often extensive on a limited topic, and in U.S.A. the elements of both systems (Continental and Insular) are often combined.

In the developing countries the essential requirements for the academic staff is the ability to teach. The lesser the effort needed for preparation of the lectures the more time can be spared by an academic staff member for research, but if the broader knowledge of the subject is lacking then even his usefulness as a teacher is diminished for a long time. This is aggravated further by the shortage of manpower, which prevents the duplication of classes or the drastic increase in the staff members.

For these reasons the use of the post-graduate course degrees, or the combined research-course degrees, as the first step in educating the University teachers should be advocated. The above does not deny suitability of the British system as the preparation for research.

The desirability of the practical experience and of the field work in Tanzania, before taking up an University appointment is sometime mentioned. However, as the requirements for teaching in different subjects and in different faculties vary the programme of such field work must be considered separately for each case.

4. THE INSERVICE TRAINING

For a young University teacher the first years after their appointment are very important indeed. Even if he possesses all the prerequisites mentioned above, his preparation for independent teaching is still inadequate. The methods which can be applied for his inservice training must vary in accordance with changeable conditions. Attention must be given first to his knowledge of the subject. This is alas seldom done. To shorten the discussion on this topic I will mention only the situation which should be avoided at all costs. It is the situation in which the teacher unprepared, or/and too busy currently, slides over the subject, reads a few pages from the text book or prepares hurriedly a few notes for the next lecture without learning the subject and its structure himself. The people who acquire such habits usually do not reach the status of a specialist

even after many years of teaching, and as the time progresses it becomes more and more difficult for them to admit their own deficiencies, the motives of seniority and authority come into play, and the whole situation turns into a permanent one.

A few other points could be mentioned here. To try, in the case of poor progress, to allocate to the teacher another course or to rotate the courses among a few teachers. This, however, can be done only to a limited extent, and broadly within the circumspection of one comprehensive subject only. But the thing to bear in mind is that the teaching tasks should, wherever possible, be graded from the initially easy to the more complicated ones, and that the participation in practicals is a necessary activity for all young teachers. A preparation of a plan of the course with a list of lectures and the description of the content is sometimes used by the Heads of the Departments to check the progress of teaching. This is closely connected with the definition of the objectives of the course and with the analysis of the problems encountered in its presentation. The course, the lecture, or the student work can be effectively streamlined by giving the titles to, or labelling, even small sections of them, and by relating these sections to the purpose, or main topic, of the course or that of the lecture.

Demonstrations of the "model lectures", "model questions", and "model answers" etc etc may also help the young teachers to find their own way. In all this the help or supervision by an older colleague (be he a Head of the Department, coordinator or somebody else) is essential. He must find the interests or lack of them of the new staff member in relation to the subject and to the teaching, analyse the situation, and suggest the remedies.

5. TEACHING AND RESEARCH

There are multiple connections between the University teaching and research. There is no doubt also that the research activities maintain the interest of the teacher in his subject as well as increase his knowledge of the subject; they also stimulate his enthusiasm, and a completed piece of research gives him an authoritative standing. Further the research facilitates personal advancement, and contributes to the reputation of the University. More importantly, the research relates the teaching to the local conditions, local problems and local solutions. It also forms a considerable part of the teachers own continuous education.

However in spite of these benefits it brings also some difficulties. It must be, therefore, considered and planned carefully. It requires special talents, time, facilities and concentration on a selected topic. It calls for the division of activities between the teaching and research and if the research commands the whole attention of the staff member then it leaves him little time for teaching.

Fortunately the Universities are usually large enough to accommodate both the researchers and the teachers. The teaching load of talented investigators could be lowered and the staff not involved in an extensive research activities can have other duties alloted to them or have more class contact. Such arrangements need not be permanent. The academic staff members with a small teaching load should be expected to be more active in research.

Another problem is the organization of research. It is usually beneficial for the University as well as for the young staff members if they can participate in the planned research, in which their investigations would be a part of the broader programme. Such approach allows for a more efficient utilization of the funds, facilities and technical assistance. It also widens the outlook of the researcher.

6. WHAT MAKES A GOOD UNIVERSITY TEACHER?

To answer such a question at length would be laborious and perhaps even, in this paper, unnecessary. It should suffice to mention that teaching at different levels requires different methods and approaches as well as different ordering of the priorities of these methods. At the University level the important factors are:

- the knowledge of the subject
- the intellectual approach to the subject
- research
- the sustained enthusiasm; and finally
- the teaching methods.

The knowledge of the subject and the role of research has already been discussed. The depth of knowledge of his subject and active contribution to its content makes one of the differences between the teachers of the secondary and those of the tertiary level.

One of the essential functions of the University (other being the addition to, and the transfer of, the existing knowledge) is the rethinking and systematizing of the knowledge and the intellectual approach of the teacher should be based on such rethinking of his subject. Only the teachers who are able to formulate their own synthesis can achieve an individual approach and become free from the slavish following of notes and text books. Admittedly this is not easy or even possible at an early stage, nevertheless it is a goal, which should be always kept in the mind of a progressive staff member. The road towards it can lead through the specification of the objectives of the subject and of the course, isolation of the basic problems and an attempt to relate them to other subjects, to the already established objectives and to the local conditions. Again it could be profitable to discuss such matters with an experienced colleague.

The art of the teacher can be compared best with the art of the architect, who normally uses the same building materials as the others but, if he is talented, he may erect a monument of outstanding grace and durability or, if he is not, an ugly and uninspiring box.

In the old days of the European University tradition, in the period when there were no scholarships and therefore no easy opportunities for the personal advancement in science, the teaching of a professor was judged not by the number of visual aids he was using, neither by other gimmicks or students questionnaires but by the number and quality of students who were inspired by him to choose a scientific career in his subject.

The highest achievement in teaching was to produce a vocation, and the professor considered himself an evocator.

The vexed problems in the University teaching are:

- the question how much to tell
- how to keep abreast with the progress of science
- how much of the students reading should be made obligatory.

The young teachers usually tend to include in the course everything they know, or everything what is in the textbook, often because they have no base for making a choice. It also must be remembered that it is not necessary to include in the lecture everything which has been published yesterday, but it is obligatory for the lecturer to read consistantly the general scientific journals as well as the current copies of the special journals, dealing with his subject. Only this can give him an orientation in the contemporary trends, and in recent advancements. Unfortunately some lecturers never peruse the journals and constantly ruminate the text of some old book. Even the handouts are the verbatim copies of various chapters from the text book. It should be remembered that the teaching is always an authoritative activity and that to a large extent the teacher's authority must be earned by himself. He cannot be a leader if he does not know what is going on in his own field of study.

All this of course is also valid for the teachers of other disciplines. It is simply a recalling of the general requirements for teaching - recalling which is advisable to make at the time of the establishing of the New School and that of developing of the staff.

Once the above conditions are secured then attention could be given to the more specific problems of teaching and to questions which are characteristic for the Veterinary Education. 17