

REFERENCES CITED

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So that there would be more direct, personal contact between the students and instructor. I would prefer to go to a completely closed-circuit system whereby lectures could be presented in person with a small television unit at hand to present the laboratory material. Such an arrangement would allow for on-the-spot questions from students instead of waiting until the end of the lecture for discussion. Another possibility which we have experimented with is the production of so-called "single-topic" films, thus bringing the laboratory to the student in another fashion. This type of "teaching aid" also has commercial possibilities for distribution to other colleges.

Teaching Animal Science

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A course in Animal Science can be a very challenging and rewarding experience. In order to meet the challenge, one of the first things an instructor must do is understand and know his students. On the surface this seems to be a superfluous statement, because most instructors would say that they know the students they are teaching. However, if we investigate the situation, do we ever become as well acquainted with our students as we should?

1. Personal Interview.

One of the ways in which we can understand our students is to give each one a personal interview before he is accepted at the college of his choice. It is a sacrifice for faculty members to give up *their Saturdays* to interview prospective students, however, it does pay big dividends in better acquainting the faculty with their prospective students.

Students seeking to enter Animal Science have different backgrounds, goals, and objectives, as well as different high school records. A short discussion with a student, which may take twenty to thirty minutes, certainly can be extremely informative for the faculty member. In the give and take of a personal interview, the student gets to know at least one faculty member on the campus before he is even accepted at the college.

The faculty member, on the other hand, increases his knowledge of the student's personal background. In some cases, students come from very large livestock farms where they had worked for years with animals, while in other cases, many students have never had the opportunity to work with livestock at all. In most cases, the high school record will indicate the potential the applicant has for college level work. In discussing his various study habits, and in observing his past performance, a faculty member has a better understanding of the student's capabilities for college work. When a faculty member has an understanding of the high school curriculums and the experiences his students have had, he will be better able to challenge them in his classes in Animal Science.

Another very important aspect of the interview is to determine the specific goals and objectives of the applicant. Are the majority of our students capable of going on for advanced degrees, or will they terminate their formal education and go back to the farm, or into the agri-business field after completing two years?

2. Keep Abreast.

Another method by which the faculty member can better understand his students is to keep abreast of what is going on in the agricultural field. If a faculty member is interested in breed promotion sales, in livestock and dairy cattle shows, in

various meetings that are attended by young people, he certainly will become better acquainted with his prospective students. A faculty member in college teaching must keep abreast of the 4-H and FFA activities because many of the young people who seek admission to colleges are products of 4-H programs, or Future Farmer of America programs. In attending meetings, shows, and sales, he will meet many of the young people who aspire to a college education.

3. Active Advisor.

A third way of keeping up-to-date with the students is to be an active advisor for a group of young people. Faculty members teaching in the Animal Science area should take personal pride in advising the students in the Animal Science curriculum. Five minutes in an office conference may explain why a certain student is uninterested in a particular phase of an Animal Science course. The instructor should certainly be able to determine many problems of adjustment that young people have during the first semester away from home. He may not be able to solve all these problems, but if he listens to them, and is concerned, he will have a better understanding of the students in his classes.

If an Animal Science Department has more than one faculty member, it is extremely valuable to discuss students in a departmental meeting. One faculty member cannot possibly know everything about all the students, therefore, in a discussion centering around students, many ideas are expressed about the capabilities of certain students, and whether or not they are being adequately challenged in their college programs.

4. Know Student.

It is, of course, necessary to have a strong background in subject material. It is necessary to keep up-to-date on feeding of livestock, diseases of cattle, horses, sheep and swine, and also the latest developments in the field of genetics. However, it is just as necessary to know the hopes and aspirations of our students.

... It is important to know what percentage of our students come with a strong farm background, what percentage of our students come from rural areas, and what percentage of our students come from large metropolitan areas.

... It is just as important to know how many students have an I.Q. of 120 or above, how many students have an I.Q. of 110 or below.

... It is important to know what percentage of your class will eventually go into dairy farming, into beef or other livestock production, or perhaps will seek advanced degrees in agriculture.

... It is important to understand the economic and social background of the young people in your classes. How many of the students in your classes are at the college on loans, or working their way on a very meager income? What sacrifices do parents have to make in order for their sons and daughters to gain this education?

Yes, before teaching can be as challenging and as rewarding as we would like to make it, we must understand our students

with perhaps the same degree of accuracy as we understand our subject matter.

5. Keeping up-to-date.

After we have become familiar with the backgrounds of our students, we must constantly strive to keep up-to-date in our subject matter field. Whenever an instructor is employed at a college, it is assumed that he has a strong background in his subject matter field, however, agriculture changes as rapidly as any other subject, and if the instructor is going to challenge his students, he must keep up-to-date in all phases of animal science. The question is, how can an instructor who is teaching full time, advising students, and working with the many committees that are required in an academic community, keep up-to-date in his subject area.

There are many ways in which this can be accomplished. The most obvious, perhaps, is by reading the journals, and other publications that explain the changes in the field of animal science. There certainly is an adequate supply of literature that will keep the animal science instructor up-to-date.

Another area for keeping up-to-date is attendance at various symposiums and other programs sponsored by colleges, universities, and associations interested in up-dating education in specific areas. Sabbatical leaves for the purpose of taking formal college courses may be necessary in particular areas of agricultural education. Not only does an animal science teacher have to keep up-to-date in the areas of feeding, breeding, and management of livestock, but also in marketing, farm management, and forage crops. After he has become well acquainted with his students, and his subject material, he is ready for the most difficult task of all — presenting information to the students in such a manner that it will be interesting, informative, and motivating. An instructor who understands his students and subject matter should be able to adopt a technique that will make the material and his presentation stimulating to his students.

6. Presentation Techniques.

There are many ways of presenting principles and practices of Animal Science to the students. Whatever technique the professor decides upon, he must first stimulate the students in his classes to want to learn the particular unit he is discussing at the time. For example, if it happens to be the prevention of mastitis in dairy cows, it is important that the students understand why this is necessary for optimum production. After the instructor has achieved his goal of stimulating the students, the particular techniques should best suit his abilities in presenting the information to his class. It may be in the form of slides, movies, or an overhead projector. Perhaps it may even be a demonstration with a live animal which again is a method of stimulating learning for the students.

Whatever teaching technique is selected for a particular unit, it must tell a story in such a way that it causes the student to change his ideas or accept new ideas regarding the principles and practices of Animal Husbandry.

Teaching does not take place unless there is learning on the other end.

The student must envision the value of the learning experience and to some degree acknowledge that this experience can be put into practice.

All instructors have experienced disappointments after a particular unit has been taught and they find that their students cannot apply the knowledge to a practical situation. It is a frustrating experience for the instructor to administer an examination after he has presented a unit, and to find the students are unable to interpret the principles so that they can make practical applications.

7. Testing.

This leads to another extremely interesting technique. Testing or measuring the ability of the student serves as a two-fold instrument. First, it measures the ability of the student to comprehend the unit that has been covered by the

instructor. Secondly, it reflects the influence the instructor has had on the student. Examinations should be so constructed as to enable the students to apply the principles that have been taught.

8. Relationship Between Courses.

In the same context, it is important for the relationships between courses to be established so the student will have a broad base for the application of any principles. In other words, it is just as important to apply sound principles of farm management in the Dairy Cattle Management course as it is to apply these same principles in the Farm Management course. The instructor must have the ability to tie together courses within the curriculum. These relationships should be strong enough so that they will be reflected on any examination.

So far we have been concerned with the instructor's ability in his subject field, his ability to understand his students, his ability to present his material, and his ability to determine how well he is succeeding in influencing his students.

9. Personal Characteristics.

The last area for discussion is the personal characteristics necessary for a successful teacher. What characteristics are necessary for an outstanding teacher to possess? I am sure everyone who has had formal education remembers a few instructors in their past who did more to influence their direction in life than anyone else. If we analyze what made these instructors prominent in our memory, we would find that one of the characteristics would be the stimulating effect they had on us personally that made it possible for them to influence the directions that we decided to take. It is important for outstanding instructors to have infectious enthusiasm. This particular characteristic motivates and stimulates students with a desire to want to learn. A person who lacks enthusiasm should not be in the teaching field — especially at the college level. It is indeed difficult enough to motivate students when an instructor has enthusiasm. If he does not have an enthusiastic approach to his subject matter, it is almost impossible to instill the desire to learn in his students.

A second trait that an instructor must have is the ability to present his knowledge in a way that will be interesting for his students. In order to do this, the instructor must be able to communicate with his students. In order to communicate, he must be able to treat his subject matter with simplicity, and yet deal with the highly complicated principles in such a manner that the students will be able to understand them. The instructor must be a professional in word usage for proper communication between himself and his students. In many cases, it is necessary to stimulate a dialogue between himself and his students. Whenever a teacher finds that one technique of presenting a particular unit is not successful, he must make changes and adjustments so that he can create a teaching situation that will be highly informative to his students. Many times the instructor has to draw on knowledge from his own personal background of experiences in order to create the proper stimulus for a learning experience.

A third characteristic that an outstanding instructor must possess is the ability to command respect from his students, and to set high standards of accomplishments. In any class there will be a heterozygous grouping of students. The top group needs additional challenge in order to perform up to their capabilities. However, it is also important that the rest of the class remain interested in his presentation. These students must be motivated to achieve up to their level of capabilities.

In any class in Animal Science, students have diverse backgrounds, differing academic abilities, and different goals and objectives. It therefore becomes a problem for the instructor to command respect, and also to set as high a goal as his students are capable of achieving.

The faculty member who puts all these characteristics together in a manner to challenge, to motivate, and to instill enthusiasm for learning in his students will be a successful instructor at the college level whatever his field of interest.