THE USE OF THE OVERHEAD PROJECTOR AS A MEAT TEACHING TOOL

CHARLES H. ADAMS

UNIVERSITY OF NEBRASKA

The overhead projector has become a popular audio visual aid in the last five years. Some have found it to be a very suitable teaching device while other instructors do not care to make use of this machine. It has become quite popular with those who present the same material term after term. This is probably due to two primary reasons. First of all it saves time in the preparation of classroom material and secondly a better quality of material can be presented.

The projector was not developed as a teacher labor saving device but more importantly it was designed to help the student better understand the subject material presented. The student, by all means, should be given first consideration. If it is not the intention of the instructor to assist the student in gaining a better knowledge of the course when using the overhead projector then it is best the instructor return to the use of the chalk board, wall charts, maps, etc.

There are many advantages for the use of the overhead projector. First of all the teacher faces the class in presenting the material which in itself is a distinct advantage over the chalk board method. The material presented can be seen by the entire class and revealed item by item without the use of large cover screens or other cover sheets. The projector may also be used in a lighted room enabling the students to take notes from the information presented. Material can be prepared in advance of class meetings, used during the class and then filed for future use.

The projecturals may be prepared by a number of methods. The use of material directly from texts, periodicals or newspapers can be prepared within a short time. As an example a chart from a text book can be xeroxed and then run through a thermofax machine to make the projectural using about ten minutes time at a cost of about thirty cents for materials. This will provide a suitable aid for many terms to come yet can be filed in a minimum of space and is readily available for future use.

Many teachers use the projector for outlining the lecture they are presenting. If cellophane rolls are provided for the projector it is possible to roll back the lecture notes to specific items presented earlier in the period or even in previous periods. It is also possible for students who miss a class to turn the roll back and find out what has been presented in lecture on the day they were absent.

Another advantage of most projecturals is that they can be altered and changed to keep up with new information. Likewise they can be constructed in such a way that subject matter can be presented item by item until the final result is presented. As an example one may start with glycerol, add three fatty acids and complete the tryglyceride. There are many other such molecules that can be constructed without spending considerable time at the chalk board writing chemical structures.
Several of the members of this conference have discussed the use of projecturals in teaching meat courses. It was suggested that we survey the institutions involved to see how much interest there was in the use of the overhead projector. A questionnaire was submitted to 45 individuals with 34 replying. The completed questionnaires indicated that at the present time only 14 teachers now use an overhead projector. There were only seven who indicated they were not interested in using or learning to use this visual aid.

Of the fourteen that use the overhead projector eight indicated they used prepared projecturals, seven made their own transparencies and nine were willing to have projecturals that they now use reproduced for other meat instructors. There were thirty-one that indicated they would be willing to purchase prepared projecturals if they were made available.

In response to the question of what projecturals the instructors now use, the most frequently listed were tabulated experimental data and bone structure charts. Other projecturals listed frequently were muscle structure, grade legends, inspection legends and wholesale cuts. Only two indicated the use of color photo transparencies. We were hoping more would be using color projecturals so that reproductions could be made for the rest to use.

The list of projecturals that instructors were interested in purchasing turned out to be quite lengthy. The most popular items were color transparencies related to marbling and degrees of marbling, meat grade ideals, meat color by specie and also grade quality and conformation characteristics. Projecturals that could be used in meat identification and meat judging were also in demand as well as muscle location and nomenclature, the chemistry of color and color changes in meat, carcass outlines, wholesale and retail cutting procedures, curing reactions, sausage emulsification and formulation, muscle structure showing primary bundles and other fiber information as well as histological material in color.

Others suggested projecturals such as factors influencing dressing percent, intransit shrink, cooler shrink, factors influencing tenderness, reasons for carcass condemnations, bruise losses, liver losses, hide losses, carcass contest forms, the G. I. tract of ruminants and non-ruminants, anatomy, schematic break down of meat proteins, the general biochemical nature of meat proteins, meat industry statistics, meat composition, meat spoilage, by-products, meat inspection and location of inspection stamps on the carcass, location of grade stamps on the carcass, bone nomenclature, portion control, cost of edible portion, nutritive value charts, microbial charts and an outline of lecture notes for "The Meat We Eat".

Evidently there is quite a demand for a number of different projecturals. This should give us enough reason to approach the audio visual industry and request projecturals which could be used in the teaching of meat courses. The chief problem will be in the small number that would purchase such material. It is time we made our desires known and find out if the development of these visual aids are economical to produce in small quantities. If such material is to be requested the best way would probably be through the cooperation of the director of literature and educational services of the National Live Stock and Meat Board.
MR. FRANKLIN: Thank you indeed, Charlie. We hope that Charlie's demonstration has given you some idea of the flexibility of this equipment as a teaching tool and perhaps some ideas by which you might use it in your own class rooms. I think that it is almost limited only by your own imagination as far as a teaching tool is concerned.

Before I ask for questions for Dr. Adams or Max Judge, I would like to comment on behalf of our Committee on the splendid audio-visual arrangements at this Conference throughout. I hope that most of you will have an opportunity to check on the closed-circuit TV which we have had. We have had a lot of comments about it, but this is a "first" for this conference. We had interest expressed before the Conference in showing closed-circuit TV and we do have a chance to see how it actually works. We hope in future years to be exploring this as a teaching tool even further.

Now, if I may entertain any questions or discussion directed to Dr. Adams. Again, as others have said, I know there is a mike in Room 109. We can't see you if you step up to the mike but we certainly would like to encourage questions from that room as well as this room. Are there any questions to direct to Dr. Adams? Mr. Bratzler?

MR. BRATZLER: Lyman Bratzler, Michigan State. Charlie, do you use dark glasses? I found the light to bother my eyes.

DR. ADAMS: Lyman, this is in reference to you as an instructor. Do you use dark glasses, or the student?

MR. BRATZLER: No, I'm thinking about myself. It bothers my eyes.

DR. ADAMS: When you are the instructor?

MR. BRATZLER: Right.

DR. ADAMS: No, it doesn't bother me, but of course you probably don't know I do have a blue tint in my glasses. Maybe that's the reason it doesn't. Some people do object to it. What brand of projector do you use? Is it 3-M or Viewcraft, or do you know?

MR. BRATZLER: Furnished by the Provost.

DR. ADAMS: Oh, well, as long as it's furnished and you don't have to buy it, use it. This one was a little bit tall for me, I think it came from the Athletic Department basketball training room because it is a little bit tall. But 500-watt bulbs usually don't bother, a thousand will.

MR. BRATZLER: Another question -- don't you lose your students when you have these prepared lecture notes? I find out if I write my notes on the projector that even then after class
they'll come up and want me to run it back. I can write faster than they can, and if you have it all prepared aren't you going to discourage them?

DR. ADAMS: Well, I'm too easy on the students. The question was, did we discourage the student in writing notes if all of this was presented to them on an overhead projector? My students are real lazy in that they get their lecture outlines already mimeographed for them, because if they would happen to drop their pencil in my class they would be about fifteen minutes behind, so for that reason they get a mimeographed copy of the lecture notes.

MR. FRANKLIN: Any more questions?

DR. KASTELIC: May I ask one? Do you use the slide projector? You know we have devices now that will allow you to focus and change pictures, forward, backward, and the light is strong enough that you need not darken the room. Students may take notes. Furthermore, they have racks on them where you can put as many as 80 slides and use as many as you like. You don't have all the fuss and bother that we once had when we used slide projectors.

DR. ADAMS: I use the 2x2 also as supplementary information. I find that I can't write on a 2x2 screen. When I want to change something on a projectural I just scratch it out and change it right then, and so this is the only limitation to a 2x2. You would have to use what is being projected unless you've got a chalk board to one side. By the way, I hope that those of you who use the overhead projector, will put your screen over in the corner and shoot at a diagonal so everyone can see the screen without ducking around the projector all the time. It's much easier to use that way. Since it's slanted across this way, you're actually looking out at the students instead of this. You notice that I could only watch about a third of you very well, to see how many went to sleep. Any other questions?

MR. FRANKLIN: Thank you, Charlie, and may I conclude with a note that if any of you are interested in obtaining projecturals such as Charlie has indicated, if you will let us know what the subject matter is we hope to try to get into some sort of quantity production on this kind of material, so we will welcome your suggestions or your requests. Back to Don Kropf.

---

DR. KROFF: Thank you, Ken. I really have nothing to say. I hope our Conference chairman Ernie Briskey is on his way back up here, and he is. I thought of something this morning when George Sledge was talking, a comment I heard was, "A person can become so well rounded that he isn't pointing in any direction." I think once in a while in our teaching work some
of our administrators or higher-ups, maybe the people over on the hill at our campus, need to keep this in mind. So this is a bit of my philosophy. And Ernie, I'll turn it back to you. My thanks to these two committees for their very fine reports.

CHAIRMAN BRISKEY: At this time I'd like to call on Larry Kunkle, the chairman of the Personnel Committee, a committee which we are most grateful for throughout the year in their many activities. I know of no person in this group who is more able to chair this committee than Professor Kunkle.

PROF. KUNKLE: Good afternoon. The speaker for this section and I are two thirds of the Personnel Committee. We promise to report within the specified time.

Since Dr. Briskey and the Executive Committee have assigned us under a new section, Business Affairs and Public Information, may I identify the Personnel Committee's history? This is directed to those of you who haven't had any contact with our function. Our purpose is to try to bring the employer and the employee - the potential employee - together. If we can operate as a clearing house, we're proud. We do not have any placement fees, and to date we haven't worried about trying to assess one. We operate when we are called upon and report to you each year. Today we're going to go farther and try to share some of the results of meat training as may be identified in placement opportunities. My fellow committee man, the head of the Food Science Department at Michigan State University has consented to tell you something about what meat trained graduates are now doing. Since all of you know Dr. Schweigert, know his history and heard his biography a year ago when he received the Distinguished Service Award from this organization, may I present my associate on the Personnel Committee, Dr. B. S. Schweigert.

###