

count Hispanics' degree of acculturation, and cultural factors such as feelings of guilt about leaving the family.

Providing intensive educational experiences which take into account Hispanics' experienced-based, intensified, negative agriculture impressions should help open Hispanic students' eyes to the new opportunities to be found in today's agriculture. More faculty role models can be powerful motivators and could make Hispanic students feel like they fit in at the college of agriculture.

High school agriculture programs should examine their curriculums and FFA activities looking for innovative ways to attract and retain more Hispanic students. An agricultural career module, at-school "home" projects, and new contests such as sales, computers and agriscience are among the possibilities. Hispanics should be well-represented on vocational advisory committees. Here, they can help design relevant courses and activities and once again, serve as role models to Hispanic youth. Agriculture teachers and counselors should work together so that agriculture courses can fit into college preparatory tracks. In joining with four year institutions and community colleges, they can provide this growing, important sector of the population with enhanced educational and career opportunities through college agriculture programs.

References

- Bowen, B. (1987). A minority's perspective on minorities in agriculture. *The Agriculture Education Magazine*, 60(6), 3-4.
- Hickey, C.A. & Solis, D. (1990). *Recruitment and retention of minority trainees in university affiliated programs--Hispanics. University of Wisconsin-Madison*. (ERIC Document Reproduction No. ED 287428).
- Hoover, T.S. & Houser, M.L. (1991). Recruitment practices--A national survey of agricultural educators. *Journal of Agricultural Education*, 32(2), 29-34.
- Larke, A. & Barr, T. (1987). Promoting minority involvement in agriculture. *The Agriculture Education Magazine*, 60(6), 6-7.
- Orthel, G., Sorensen, J., Lierman, S. & Riesenber, L. (1989). The image of agriculture: High school students' perceptions of agriculture and careers in agriculture. A survey conducted by Agricultural and Extension Education, College of Agriculture, University of Idaho, Moscow, ID.
- Orum, L. & Navaerette, L. (1991). Project Excel. *Community Education Journal*, 18(4), 9-13.
- Romo, H. (1984). The Mexican origins population's differing perceptions of their children's schooling. *Social Science Quarterly*, 65(2), 635-649.
- Trotter, E. (1988). Minority apprenticeship program boosting agriculture and natural resource enrollments. *NACTA Journal*, 32(4), 16-17.
- White C., Stewart, B.R. & Linhardt, R. (1991). Career opportunities in agriculture as perceived by inner city high students. *Journal of Agricultural Education*, 32(1), 30-34.
- Wirsching, T.P. (1992). *Determinants of Idaho Hispanic female participation in adult education programs*. Unpublished masters thesis, University of Idaho.



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Developing Oral Communication Skills in Animal Science Classes

Steven A. Zinn, Cameron Faustman,
and John W. Riesen

To enhance the development of oral communication skills in undergraduates at the University of Connecticut, five courses within the Animal Science Department require oral presentations of each student enrolled in these classes. Since three of these courses are required for a degree in Animal Science, a de facto requirement for oral communication has been established within the major. By including requirements for oral presentations in five different courses, the utilization of class contact hours for these presentations in no one class is burdensome.

Introduction

A primary objective of undergraduate educators should be to produce graduates with communication skills sufficient for success in the workplace. Surveys of employers in agribusiness, (for example see Harris, 1989) and presentations by leaders in agriculture and personnel officers all reiterate that students must develop good communication skills to improve their chances for employment and success. Similarly, these skills are important criteria for success in postgraduate education, whether in professional or graduate programs. The need for improvement of communication skills in general, and more specifically writing skills in undergraduate education, has received substantial attention (Katz, 1982; Smit, 1991). In partial recognition of this fact, the University of Connecticut has made a major commitment to develop the writing skills of undergraduates. In 1988, the University of Connecticut established General Education Requirements (GER) for all students regardless of major. A portion of the GER requires that students enroll in a minimum number of courses which emphasize skills in writing. Any course may carry a writing or "W" skill code designation as long as it follows the guidelines established by the University Senate and receives approval from that same body. For example, two courses which are taught in the department of Animal Science carry a "W" skill code (e.g., Animal Food Products, and Dairy Herd Management). The writing assignment may be supplementary to course material, or be integrated within the subject matter. As a minimum, a "W" course must require 15 typed, double-spaced pages, which are evaluated on several occasions often in the form of successive drafts. This has proven

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to be an effective means for teaching students how to improve their writing; too often students write a single draft of a paper and do not receive a graded copy until semester's end when final course grades have already been determined. An important requirement of the skill code concept is that students who fail to complete the written work satisfactorily receive a failing grade for the entire course. Animal Science majors are required to enroll in two "W" courses plus two English courses in order to graduate. Thus, an extensive effort has been made at the University of Connecticut to improve the writing skills of its students.

The establishment of the GER and the added emphasis on writing skills has had a positive impact on undergraduate curriculum at the University of Connecticut. It is equally as important for undergraduates in agriculture to develop oral communication skills (Harris, 1989). However, there is not a parallel requirement for development of oral communication skills as there is for writing for undergraduate students at the University of Connecticut. A course in public speaking is offered, but is not required for graduation by any major within the University and fewer Animal Science majors enroll in this course.

Communication Skills Needed

Traditionally in Animal Science, presentation of oral reasons in animal/carcass evaluation courses and judging teams has been the major opportunity for students to gain experience in oral communication (Eversole, 1990). However, these courses are often not required and as the number of non-traditional and pre-professional animal science majors have increased, the number of students utilizing this opportunity has decreased. Thus, few of our undergraduate majors are provided a means to enhance their oral communication skills. This is undoubtedly not an oversight or a statement of the relative importance between writing and speaking skills, but is likely a result of the amount of class time required for student presentations. Adding the writing designation to a course within animal science requires multiple assignments and multiple steps of evaluation and criticism; adding this component to a class does not require utilization of a large number of contact hours. Thus, only limited class time is utilized to improve the writing skills of students. In contrast, even a single, short oral presentation by each student can utilize a large number of contact hours, let alone if multiple opportunities within each class were offered. For example, a 10 minute presentation by each student in a class with 25 students requires a minimum of five 50 minute class periods or two laboratory periods. However, the utilization of class time does not preclude the importance of offering students opportunities to improve their speaking skills. Therefore, to begin to develop oral communication skills in undergraduates that major in Animal Science, five courses now require at least one oral presentation by each student in the class.

Five Courses Tackle Communication

The five courses, nutrition (Animal Science 216), reproduction (Animal Science 219), growth (Animal Science

222), animal food products processing (Animal Science 241), and senior seminar (Animal Science 295) have three different instructors and cover a wide range of topics. Three of these five courses (Animal Science 217, Animal Science 219 and Animal Science 295) are part of the core curriculum required to obtain a B.S. in Animal Science at the University of Connecticut. The remaining two courses are electives within the department that fulfill specific graduation requirements. Therefore, an undergraduate student cannot graduate with a degree in Animal Science without making at least three oral presentations and a majority of students would have at least four different opportunities to make presentations. As important, each student will have three or four opportunities to be evaluated and to improve their oral communication skills during their undergraduate career. By including requirements for oral presentations in five different courses, the utilization of class contact hours for oral presentations is not burdensome in any one class.

Courses, Requirements, Criteria

The inclusion of oral presentations in these five courses was not a departmental curriculum guideline, but the independent decision of the authors that teach these courses. Because several of these courses are required, the decision of these faculty to include oral presentations in their classes has created a de facto requirement for public speaking within the Animal Science major. However, as the titles of these courses indicate, the overall objectives of each course are very different and because the five courses are taught by three different instructors, the relative weight to final grades given to the oral presentation varies. More importantly, the basis of the assignment as well as the criteria for presentation varies with each instructor and with each course. Indeed, this may be the one drawback to this approach to give students experience in oral communications. That is, with different instructors and different criteria for evaluation in each course, there is the potential to confuse students as to effective methods for oral presentations. Given the variation of assignments across these courses, a brief description of the material, the assignment and the method of evaluation for each of the courses follows.

Animal Science 216 "Principles of Nutrition and Feeding of Animals"

Nutrition is taken primarily by sophomores and juniors. It is a required course for Animal Science majors. Each student must give a 10 to 12 minute oral presentation to the rest of their laboratory section. The assignment is discussed on the first day of class and presentations are made during the laboratory period in the last two weeks of the semester. Students are encouraged to use the library early in the semester and to choose a topic. Frequently during lecture, or in answer to questions, potential talk topics are discussed. Students must submit a talk title midway through the semester and these are reviewed for appropriateness and duplication. When students in the same laboratory section submit similar titles, they are called together and either agree to take complementary aspects of the topic, or change topics. The pressure of presenting to ones' peers, and natural desire

to do well is adequate motivation, and no further emphasis is placed on speaking technique. In fact, students are assured that their grade (8 to 10% of the final grade) will be based on their talk content and the way they handle questions. Students are graded by a panel of the graduate assistants and the instructor. Each determines a grade independently and then after deliberation a final grade for the presentation is established.

Animal Science 219 "Reproductive Physiology"

Reproductive physiology is an upper division course that is required for Animal Science majors. Before topics are submitted, one laboratory period is devoted to a tour of the University library facilities including discussion of the various indexes covering reproductive physiology. CD-ROM database searching is also discussed including search strategies both for topic ideas and for researching a topic once chosen. The instructor is available to discuss topics with any students. The most common suggestion is to make the topic more specific. Use of topics with current scientific research is encouraged, although topics such as Reproduction in the Monotreme, and Leptospirosis and Reproduction are allowed. Topics are due six weeks before the presentation and talks are given during laboratory sessions in the last two weeks of the term. In some years the laboratory sessions have been divided with concurrent sessions. This makes a more informal setting and puts the students more at ease. Talks are grouped to appeal to student with similar interests. Thus, one session may have talks on a given species (horses), or on practical reproductive issues, while another may include talks on endocrinology and physiology. A program is handed out and students not presenting are encouraged, but not required, to attend that session. Students are not quizzed directly on the material covered in talks, instead they are given an additional one half of a letter grade credit for attending the week they are not presenting a paper. For example, a student that receives a B for their presentation, would receive a B+ if they were present the week they did not give their talk. Given the added incentive, students rarely miss attending the additional session. The talk requirement has been part of this course for many years. In general, students do not like the prospect of giving a talk to their class. However, once the presentation is made and a positive situation established in which peers ask questions out of genuine interest in the material, many students reported it as a worthwhile, positive experience including some alumni that graduated many years ago and still view the experience of giving their Repro Talk as beneficial in their college career.

Animal Science 222 "Growth Physiology and Metabolism"

Growth Physiology is a 3-credit upper division course that fulfills an elective requirement for Animal Science majors. The course focuses on development and metabolism of muscle, adipose and bone and the role of the endocrine system, nutrition and genetics on these processes. Each student is required to write a 7 to 10 page paper that focuses on an aspect of growth physiology. Following the return of the paper, each student is required to make a 10

minute oral presentation on their paper topic. These presentations are scheduled during the last two discussion periods (4 hours) of the semester. The presentation accounts for 10% of the final grade. To help ensure greater quality in the presentations plus an attentive audience, 15 to 20 percent of the final exam is comprised of questions from these presentations. In addition, to increase the number of questions for the speakers, 20% of their final grade is based on audience participation in the discussion section. Evaluation of the talks is made by the instructor with input from a teaching assistant. Students are given the option of making an appointment with the instructor to discuss the quality of their talks and potential alternatives to improve their presentations. The quality of these talks has been excellent and according to student evaluations of the course, the entire exercise is a positive portion of the course.

Animal Science 241 "Animal Food Products Processing"

Animal Food Products Processing is an upper division course which emphasizes concepts in the development and analysis of animal-based food products. A major portion of this laboratory course is devoted to student group projects. These projects have generally been geared towards 'new' product development in which students manufacture and analyze (subjectively and objectively) various nutritional and quality attributes of their product. At the end of the course, a written summary of the project is submitted. In addition, each student group is required to present their results orally to the rest of the class. The oral presentations last approximately 30 minutes and provide excellent opportunities for class interaction. Typically there are three to four groups per class and one laboratory period is set aside for the presentations. The public speaking forum has allowed students to thoroughly communicate the difficulties which they encountered in their projects, and has also provided a means by which students suggest improvements and/or projects for future classes. Questions from classmates challenge the various presenters to think on their feet. To date, the structure of the oral presentation has been informal with each group deciding the extent of participation by its various members. In some cases, a single group member has made the entire presentation, while other groups have opted to have all members present some aspect of the project summary. The latter format is preferred so that all students gain some public speaking exposure. At present, evaluation is made by the instructor only.

Animal Science 295 "Senior Seminar"

Senior Seminar is a one credit, upper division course. Successful completion of this course is required to obtain a B.S. in Animal Science. One of the primary objectives of this course is to give students an opportunity to make oral presentations in front of a group of peers. The assignment requires each student to present a 10 minute speech on a topic of interest to them in the field of Animal Science. The instructor makes the final decision on suitability of an individual topic, but talks have ranged from establishing a small animal grooming clinic to the pharmacodynamics of specific drug therapies in cattle. Presentations account for 40%

of the final grade. Ten criteria are utilized to evaluate an individual's presentation, including, knowledge of subject, summary, visual aids, increasing level of interest in topic and ability to answer questions. Each student is given the list of criteria well in advance of their presentation, so that they may begin to prepare their talk with the criteria in mind. In addition to the instructor, one-third of the students critique each speech. At the subsequent class period, the student is given a written critique from the instructor plus a summary of the peer evaluations. Methods to improve the talk and presentation style are offered in a constructive manner. For a more in-depth critique, students are encouraged to meet with the instructor.

Although class time utilized for the oral presentations in these classes is significant, there is a substantial perceived benefit for the students and time allotted in the laboratory/discussion periods of these classes. The different methods employed in these courses to give students experience in oral communication skills is by no means exhaustive of the many approaches instructors may take. However, student feedback on course evaluations on the approaches we have used has been very positive and we will continue to utilize the oral presentations as part of the requirements in these five courses.

Summary and Conclusion

To compete successfully in the job market and (or) in professional and graduate programs, development of good communication skills, both written and oral, are important to undergraduates. The University of Connecticut has made a major commitment to improving the writing skills of its undergraduates. However, there are no university-based requirements for oral communication. To address the need for undergraduates to develop communication skills, five courses in Animal Science require oral presentations. A student cannot graduate with a degree in Animal Science without making at least three oral presentations and a majority of students would have at least four different opportunities for exposure to public speaking. Thus, inclusion of the oral presentation in these courses has created an additional graduation requirement to develop oral communication skills for all Animal Science undergraduates. This has been successfully accomplished without adding a formal speech course to curriculum requirements. By spreading this de facto requirement for oral presentations across a number of courses, the utilization of class time in any one class is reduced.

References

- Eversole, D.E. "Video Provides Essential Feedback For Course in Livestock Judging." *NACTA Journal* 34-4(1990):19-20.
- Harris, K. "Skills and Characteristics Needed By Undergraduates Choosing a Career in Agricultural Sales." *NACTA Journal* 33-2(1989):39-43.
- Katz, J. "Its Time to Reverse Our Retreat from Reality in Teaching College Students." *Chronicle of Higher Education*, July 21 (1982):40.
- Smit, D.W. "Improving Student Writing." Idea Paper No. 25. Center for Faculty Evaluation and Development. Kansas State Univ. Manhattan, KS, (1991).

In Memory of NACTA's 25th President Dr. Robert R. Shrode

Dr. Robert R. Shrode, the 25th President of NACTA (1979-1980), passed away December 1, 1993. He suffered a stroke on November 2nd which resulted in complications progressing to kidney failure.

Bob was born October 23, 1919, in Colorado. He received his B.S. in Animal Husbandry from Colorado State University in 1943, an M.S. in Animal Breeding and Statistics from Iowa State University in 1945, and a Ph.D. in Animal Breeding and Statistics also from Iowa State in 1949. He married Myrtis Irene Conry on August 7, 1948. They had two daughters, Beverly Irene and Flora Grace.

Bob held positions as Professor of Genetics at Texas A&M from 1947-1958, Geneticist at the Miner Agricultural Research Institute from 1958-1960, Population Geneticist at Dekalb Agresearch, Inc. from 1960-1966, and Professor of Animal Science at the University of Tennessee from 1966 until he retired about 1988.

Dr. Shrode was a well-loved, strong motivator in NACTA. He was recognized as a NACTA Teacher Fellow in 1974, NACTA Southern Region Distinguished Teacher award in 1974, the NACTA-Ensminger-Interstate Distinguished Teacher award in 1976, and the NACTA Distinguished Educator award in 1987. Bob was similarly recognized and rewarded by his peers in Animal Science, Genetics and Statistics.



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