"Are You Talkin' To Me?" Teaching Students to Communicate in Their Discipline

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Introduction

Presentation of Scientific Information (ENT 305) was designed as an undergraduate course to teach presentation skills to students in the sciences with an emphasis on adapting information for specific target audiences. Joining an adoption of ENT 305 into the new Agricultural Education curriculum, agricultural education students joined the course for the first time in Fall 2000. The justification for initiating this course was threefold. Primarily, faculty in the Entomology program were not satisfied with the performance of students in delivering their required senior seminar. Students were knowledgeable, but many were unable to organize and present information in an exciting and interesting manner. Second, Clemson University requires students to acquire oral communication credits toward graduation. In developing this course, the attempt was to focus their effort on learning to function in the “real world.” Along this line of thinking, the third justification for developing this course was a desire for our students to be competitive after graduation for positions requiring exceptional communication skills. In speaking with potential employers, Entomology faculty learned that the most important trait they wanted in new hires was the ability to communicate at different levels.

Course Structure

To achieve the goal of teaching students to present scientific and technical information to target audiences with different levels of background, education and interest, the process and mechanics of building a presentation were essential. Special emphasis was made on how to research a topic, organize material, design visual aids, understand their target audience and gain confidence as a speaker. Students also learned the fundamentals of speaking reviewed in any typical speech course - topics such as delivery methods, styles and types, and organization of a presentation. A hands-on approach was used for teaching/preparation of visual aids. After receiving instruction on how to layout visual aids, the class met at a campus computer lab to learn how to prepare professional slides using Microsoft PowerPoint 2000. A specialized course CD was prepared for students, which included graphics and audio files, a PowerPoint viewer, additional PowerPoint templates, and an assortment of bookmarks to agricultural sites related to students’ presentations. Students also learned to prepare large format posters and the protocol involved in presenting with this medium. The posters were prepared using PowerPoint 2000 and a Hewlett Packard 36” inkjet plotter provided by the Department of Biology Instruction and Agricultural Education.

More than 25% of class time was spent in the computer lab assisting students with slide and poster preparation.
Students began by choosing a topic of interest, a topic about which they were curious, excited and enthusiastic. After a session with a librarian on searching techniques, they selected an article from a refereed journal on their topic and located related literature. Students were asked to become “experts” on their chosen topics.

Each presentation assignment (4) gave students experience communicating with a different type of audience. Each presentation was intended to build on the previous one, which included:

1. Presenting to a scientific or professional audience, which was based on the refereed journal article the students had selected on their topic. Students assumed they were speaking to a knowledgeable audience of researchers;
2. Presenting to an informed audience. Students assumed that their audience members were practitioners who used technical procedures or information, but had no depth of knowledge beyond the narrow framework in which they operated;
3. Presenting to an uninformed audience, an audience that had no scientific or technical knowledge. The students assumed the goal of this presentation was to entertain as much as it was to inform their audience, and
4. The final assignment directed students to develop a poster presentation based once again on the refereed journal article they selected in the beginning of the semester.

Costs associated with the course were minimal, since the students were provided with access to computers and software for slide preparation, a video projector, and plotter. A video camera was used to record presentations that were later reviewed one-on-one with each student.

Evaluation of Course

Students’ response to the course was excellent. Comments were very favorable, including:

“I benefited greatly from taking this course. Even after Speech 250, I did not learn the skills I learned in this course. I know this is closer to what I will be doing as a professional,” and
“...gained good experience making slides and poster...did not learn any of these skills in other courses.”

Some of the same students who gave positive responses about the course, provided valuable constructive criticism. Some of the comments were:

“...pace was a little too hectic between presentations and slide prep, but schedule adjustments were fair,” and
“... don’t leave anything out, but give more time initially to learn the ropes of presentation and slide-making.”
Improvements for the course are based on providing more time initially to orient students and providing more time between presentations. The extra time came from reducing the amount of time allocated for discussing speech theory. Some of the material can be provided as a handout and some can be rolled into discussions on the different target audiences.