

How are these three elements reflected in the classroom?

1. **Intelligence** of course reflects your command of your subject and your expertness in your field, but it also is suggested by your familiarity with the great world beyond the classroom. Students respond to the teacher who relates his materials to other fields and who also seems at ease in discussing other topics.

2. **Good character** is associated with the virtues: goodness and morality. In the classroom the students place a high premium upon objectivity, fairness, forthrightness, promptness, and compassion.

3. **Good will** is suggested in your attitudes toward your students: attempts to understand the student's point of view, concerns about the student's welfare, how you answer questions, enthusiasm about your subject, and being available for conferences.

A few years ago the LSU Petroleum Engineering Department had an outstanding student who showed great promise — at least the faculty thought so. Among the graduates that year, he found the top job. Six months later he was fired. One of his professors rushed over to the speech department seeking a remedy. Did the young engineer have a communication problem? It seemed the oil men had found the young engineer arrogant. I would say that he lacked **ethos**. When you lose common touch, lose sight of the worth of others, lose compassion for others, then you are likely to fail as a communicator. Your students will find you out and turn you off. My message is found in these words: "Though I speak with the tongues of men and of angels and have not love I am become as sounding brass or a tinkling cymbal."

Improving Instruction LSU Style!!!

Martha Collins Cheek

Improving instruction on a university campus is a topic continuously discussed throughout the country. Unfortunately, at many universities, little action is taken following many faculty and administrative conversations. At Louisiana State University, the same situation existed — there were numerous discussions regarding the need for some in-service program to help the faculty improve their teaching skills but nothing happened. However, when the faculty senate adopted this interest in teaching as a special concern and requested assistance from the administration to develop a plan for providing such in-service, changes began to occur.

More meetings, more discussions, and finally in 1978, a plan was developed for offering faculty members information on techniques for improving their classroom instruction. The recommendations of this interdepartment committee were specific, based on much faculty input, and careful deliberation. The following suggestions were included in the recommendations presented to the Vice-Chancellor of Academic Affairs.

- A course entitled "Faculty Enrichment" should be offered through the office of the Vice-Chancellor of Academic Affairs.
- The course should not be attached directly to any college or department.
- The course should be offered for three semester hours of graduate credit and open to faculty members as well as doctoral students.
- Participants may elect to enroll in the course for graduate credit, an audit, or just sit in on the classes without registering.
- Resource persons from throughout the university should be invited to serve as leaders for

the class with a coordinator designated by the Vice-Chancellor of Academic Affairs.

- Persons participating in at least two-thirds of the sessions would receive a letter of commendation from the Vice-Chancellor. Copies of such letters should be sent to the participants' deans and chairmen.
- The contents of the course should emphasize teaching with a proposed course outline included with these recommendations.

Following these recommendations and using the proposed course outline, the Vice-Chancellor and appropriate university committees approved the offering of a course for faculty enrichment of teaching skills to be known as University (UNIV) 7000!

What Next?

In the Fall of 1978, the Vice-Chancellor of Academic Affairs appointed the coordinator for UNIV 7000 and directed that the course be offered for the first time in the Spring Semester 1979.

With the committee's course outline as a guide, resource persons were identified from throughout the university. The course was advertised via a variety of means; and at spring registration, twenty-six faculty members elected to become involved with the class — one for credit, three to audit, and twenty-two just to sit in! The course participants were enthusiastic about the classes, provided continuous input regarding changes needed in the course, suggested speakers, and served to advise the coordinator on all aspects of this new course. At the conclusion of this first semester experiment, twenty of the twenty-six participants received letters of commendation, the course outline was revised, and a campus survey made to determine if, in fact, spring was the best semester for this once a year course.

With the survey findings indicating a desire for the course each semester combined with the advice of the first

Cheek is associate professor of Education and course coordinator at the Louisiana State University. This paper was delivered during the 27th annual NACTA Conference held on the Louisiana State University campus at Baton Rouge, LA, June 7-10, 1981.

"graduates" and the administration to continue to offer the course only once a year, a decision was made to continue the course each spring semester, to revise the course outline, adjust the schedule of presentations, and to do more advertisement of the class. The first participants volunteered to help advertise along with the university publicity office.

The mark of success for the course came when it was presented in the alumni newsletter and then received a three-page write-up in the L.S.U. vs. Alabama football game program. The importance of instruction at L.S.U. was noted!!

The Second Year

With such initial success, the second year of UNIV 7000 was approached with more enthusiasm from the administration and ten participants — six of whom finished with commendation! What happened? For the giant steps forward the first year, this seemed like tremendous steps backward the second year.

Careful analysis was done throughout the semester and we are not sure of the reason for the decreased enrollment. However, this less than enthusiastic response from the faculty caused several changes for the third year.

- A carefully planned publicity campaign was undertaken with each "graduate" being asked to recruit a fellow faculty member.
- Classroom facilities were selected to reflect more administrative support for the course.
- Deans and chairmen were made more aware of the course by the Vice-Chancellor.
- Publicity on the university radio, campus newspaper, and faculty information notes served to assist in advertising the course.

Year Number 3

Spring semester 1981 was different. The first class meeting in the chancellor's conference room necessitated additional chairs. The Chancellor and the Vice-Chancellor came to welcome the participants and were elated to see twenty-four faculty members. The class continued to meet in the chancellor's conference room and each week a new participant visited. Three participants from previous years enrolled, and once again the tremendous enthusiasm for a course on improving instruction developed. This year surpassed all others for telling the administration and faculty members that the UNIV 7000 participants represented a population of people who are sincerely interested in improving instruction at L.S.U.

With the revised course outline, additional resource persons, and a larger course enrollment, UNIV 7000 has emerged as a course which serves to bring many segments of the faculty together for a common goal. New friendships and increased program coordination are but two of the fringe benefits of the class. What next year will bring is still a mystery to all, but regardless, better instruction is happening in some classes on the L.S.U. campus because of the shared interest in teaching of the faculty and administration.

Special Tips

In designing a class such as UNIV 7000, experience is the best teacher. However, a few tips from our experiences should be shared. First, and of most importance, the course should NOT be required of poor instructors. Forcing participation in such a course does not cause instruction to change. The course comes to be identified as a "remedial" class for faculty with many negative attitudes and hostilities emerging. Allow free participation. The class will be filled with fifteen excellent professors to every one poor teacher, but the one will learn from association and will not be readily identifiable.

Another significant tip relates to the facilities. Prestigious classroom accommodations create a feeling of importance. This special feeling is necessary as a motivator to show that the administration really believes that improving instruction is important. Poor facilities were a contributing cause of our poor second year! As important as the facilities is the need for resource persons who are informative and relate to their peers with relevant suggestions about teaching. Resource persons should consist of faculty members who have been recognized as outstanding teachers through awards as well as general student comments. Additionally, administrators should be included to provide the faculty participants with an opportunity to get to know the administration on a more informal basis. Knowing the people in decision making positions sometimes helps faculty participants, especially new faculty, better understand how and why decisions are made.

Faculty input before, during, and after each session as well as a semester evaluation are necessary if the course is to meet faculty needs. The input must be acknowledged and changes made as necessary. The course is designed to meet faculty needs; thus, faculty input and coordinator response to this input is essential.

Advertise the course. Let the faculty know the content, speakers, time, and location well in advance. Use enthusiastic participants to motivate others; put notices around the campus; send an announcement from the administration to each faculty member; do anything to encourage participation! Professors are sometimes hesitant to enroll in a course of this nature because they may believe that they are admitting a weakness. Therefore, all advertising of the course must be done in a positive manner and indicate administrative encouragement.

A last tip which is sometimes overlooked is the need to provide social activities which help the class participants share their teaching successes and frustrations. Group luncheons and coffee before each class help to build a personable atmosphere which develops lasting friendships and motivates the participants to experiment with different teaching ideas. Learning from one another is the most valuable resource — this network of learning is never ending!

This list of tips for getting faculty involved in an instructional improvement course grows each semester. The importance of each suggestion varies dependent upon the situation. However, with the faculty and ad-

ministration working together to upgrade the university, realizing that good instruction is essential in any quality program, a course such as UNIV 7000 will succeed on any university campus. L.S.U. is not unique, but our course and approach to improving instruction seems to be. Remember — one faculty member may come in contact with a hundred or more students per semester. Multiply this by three semesters per year and then by thirty or more years. At least nine thousand students in a lifetime — will this influence be positive or negative? The key is effective instruction!

IDEA SHARING SESSION

NACTA Conference

Freeze-Dried Biological Specimens¹

Charles G. Wright
North Carolina State University

Specimen identification and examination form an important part in many instructional programs. The life sciences, depending on the particular subject matter, have used as visual aids illustrations in books and pamphlets and on wall charts, photographs on slides and filmstrips, 3-dimensional models, and preserved biological specimens. Specimens have been preserved in different ways, for example, by taxidermy, in fluids and by pressing and drying. Many of the specimens shown by picture or preserved by the various techniques do not display the specimen in a reasonably natural condition of color, texture, and dimension. In fact, one of the suggestions for improvement often given by students in courses where biological specimens or visual representatives of them are used is to include actual specimens, if they are not, and, if they are, to improve the quality of the specimens.

Freeze-drying offers the potential for improved quality in preparing specimens for instructional purposes. The process of freeze-drying specimens has been practiced since 1890, but it has been used effectively only since the late 1950's when the Smithsonian Institution began using the technique for preserving some of their specimens. Since then there has been continued improvement in this preserving technique, so that today over 4,000 specimens have been preserved in this manner at the Smithsonian Institution. Various persons at universities, colleges, museums, and other places are now using the freeze-drying procedure to preserve specimens for both instructional purposes and exhibits for public viewing.

Freeze-drying is a simple process, after the basic techniques and characteristics peculiar to the specimens

¹The author is indebted to Mr. Jiles Harrell, Dr. Harry Moore and Mr. Fred Scott, (1) Harrell's Pest Management Service; (2) Entomology Department, North Carolina State University; and (3) North Carolina Museum of Natural History, respectively, who furnished information, and encouragement in the preparation of this article.

being preserved are determined. A freezer and a freeze-drier are necessary. Specimens, after being collected and killed, are properly positioned. They are then placed in a freezer and kept frozen there until they are placed in the freeze-drier. The specimens in the freeze-drier are kept frozen while being dehydrated by sublimation. Sublimation occurs because a vacuum is drawn on the drying chamber. Dehydration or drying time varies from a few hours to nine or more months, because plant and animal specimens have different permeabilities, as well as different sizes.

Examples of freeze-dried materials are many. Plants such as fungi, cacti, orchids, and ferns preserve well. Animals, ranging from nematodes, soft-bodied insects, spiders, mites, millipedes, snakes, turtles, birds, small mammals, fish and alligators, have been thus preserved. The developmental stages of various animals are good candidates for preservation, as well as body organs, including but not limited to the lungs, heart and brain and portions thereof. Even artifacts, such as salted beef taken from a ship submerged in the Missouri River since 1865, have been freeze-dried and preserved.

There are references on the various aspects of freeze-drying. An excellent reference which gives a very thorough discussion of freeze-drying from its early years through ca. 1979 is that of Hower (1979). The book is of extreme value to both the novice and the person who has had experience in freeze-drying techniques, since it goes into many details for freeze-drying equipment, the methods used with different plants and animals and, in addition, it contains an extensive list of references.

Time, experience, and response of students have shown that freeze-dried specimens are a valuable addition to many courses and add to the quality of instructional materials, with improved comprehension and learning by students and the subsequent upgrading of the course.

Literature Cited

Hower, R.O. 1979. *Freeze-drying biological specimens: a laboratory manual*. Smithsonian Institution Press, Washington. 196 pp.

Enlarged Photographs — An Overlooked Teaching Aid

Thurman T. Thomas
Professor and Head of the Agriculture Department,
Northeastern Louisiana University,
Monroe, Louisiana

The enlargement of color photographs has been a very logical development in a continuing search for new and innovative ways to improve the laboratory in introductory crop science. The laboratory employing the audio-tutorial approach already has the normal compliment of visual aids such as color slides, single concept loop films, brochures, bulletins, graphs, and charts. Also, fresh, dried and frozen plant specimens are regularly utilized in the various laboratory units. Even with all of these aids there were many questions being asked each semester by a large number of students — questions usually dealing with some minute part of the