

There are opportunities for other block programs in various areas of agricultural economics. In the Fall of 1982, CSUF conducted a block which included farm management, agricultural finance, and farm appraisal. Student evaluations of this block were mixed. Suggestions made by students showed that more time should have been given to organizing and planning the program to ensure its success. There was also evidence that a six-unit block composed of just agricultural finance and farm appraisal might be better, especially if the students enrolled had taken a basic farm management class prior to enrolling in the block.

### Evaluation

The following student evaluations and comments about the program are indicative of comments from students who participated in the block program over the past few years:

1. "A pleasant variation from classes with tests, quizzes, etc. Gives you practical experience you will eventually need."

2. "I would recommend this course to others. It is the best course I've ever been in at CSUF. The strong point is that it gets the students involved."

3. "This course should be a requirement because it succeeds in developing students' communication and learning skills through peer evaluation and student control of his effort."

4. "Good to improve your relations with people."

5. "Course structure excellent. Handouts excellent."

6. "Guest speakers and supplemental materials were excellent."

A block program has certain advantages and disadvantages. There are those that might argue that it takes less time and effort on the part of the instructor. Experiences with the program indicate that this is not true. The instructor's time is largely devoted to organizing, facilitating, prompting, planning, and serving as a resource, rather than lecturing. The material presented by students, occasionally may be shallow. However, the block generally encourages a deeper involvement in the subject matter on the part of students as they begin to bridge the gap between theory and practice.

The block program is restricted to a small number of students, disadvantage in institutions where large classes are often required. Another weakness of the program may be the possibility of the "free ride" by some students in team projects. This has not been experienced to any great extent in the program: peer pressure seems to control it.

The motivation generated in the program in terms of student involvement, improved student-instructor relationships, and the spillover effects of stimulating innovation in teaching within the department are sufficient to continue or even expand the block program.

## NEW CONCEPT

# In Technical Inservice For Agricultural Teachers

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For a number of years, the Department of Agricultural Education at The Ohio State University has provided inservice education courses and workshops for teachers of vocational agriculture. Topics for the inservice programs have included both professional education and technical agriculture. The Department of Agricultural Education offers courses and workshops on professional education topics. Other departments within the College of Agriculture have cooperated by teaching courses during June of each year specifically for high school teachers and by serving as resource persons for non-credit sessions.

Until recent years, non-credit workshops for vocational agriculture instructors were provided at various locations in the state. In 1980, a new concept in technical inservice education was initiated. With the Department of Agricultural Education serving as the coordinating body and with the cooperation of the Ohio Department of Education Agriculture Education Service, the first Technical Update for Teachers of Vocational Agriculture was planned by the College of Agriculture.

### Tech Update

"Tech Update," the title given the workshop series, was scheduled for June 16-17, 1980, on the campus of the College of Agriculture at Ohio State in Columbus. The Dean of the College of Agriculture encouraged full cooperation of all the departments within the college in preparing for and conducting the first of what has become an annual event. Department chairpersons selected representatives from their respective departments to serve as the initial planning committee; teachers of vocational agriculture were consultants and met with the various departments in selecting topics for the workshops.

The 1980 Tech Update consisted of 66 workshops, each lasting two or four hours. Teachers had the option of enrolling for a maximum of 6 workshops with topics that were appropriate for specific teaching assignments, such as production agriculture or horticulture or natural resources. Examples of workshops included "Supply-Side Economics and the Reagan Administration," "Alternative Fuels for Use on the Farm," "Beef Cattle Heat Synchronization," "Remote Sensing," and "Animal Welfare Update."

A registration fee of \$10 was collected as teachers pre-enrolled to cover the cost of consummable

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materials and handouts. Workshops with an unusually high cost required a small additional fee. Travel to and from the campus was generally paid by local schools. Other expenses, such as meals and lodging, were met either by the teachers or their schools. No college or registration monies were spent for expenses other than materials for the workshops.

The first Tech Update was highly successful. A total of 465 of the 757 vocational agriculture teachers in the state participated. The participants and the presenters were pleased with the sessions. Data were collected using an evaluation instrument completed by participants at the end of the workshops. Facilities, materials, skill development, and knowledge attainment were all highly rated by participants. The presenters, who were resident instruction, extension, and experiment station faculty, received the most favorable response on the evaluation instrument. Teachers enthusiastically endorsed holding another Tech Update in 1981, and again in 1982.

Since 1980, Technical Update for Teachers of Vocational Agriculture has undergone a few changes. The 1981 workshops were held on the campuses of the Ohio Agricultural Research and Development Center and the Agricultural Technical Institute at Wooster in northeastern Ohio. A total of 368 of the 761 teachers participated in 63 workshops. In 1982, Tech Updates was the manner in which topics were selected. Suggested topics were obtained from a sample of 135 local teachers, local agriculture supervisors, and state supervisors. The suggested topics were used to develop a series of eight instruments, one for each major instructional area in vocational agriculture in Ohio, namely production agriculture, animal care, agribusiness, products processing, agricultural mechanics, horticulture, natural resources, and forestry. The instruments were used to survey the teachers of vocational agriculture regarding possible topics for Tech Update workshops. The Borich Needs Assessment Model was utilized in designing the instruments and analyzing the data (1980).

Teachers responded to the list of possible topics by indicating the importance of the topic to their teaching, their level of knowledge of the topic, and their ability to apply their knowledge in teaching, each on a scale of 5 (high) to 1 (low). With the Borich Model, weighted scores were obtained that were based on knowledge and importance of the topic. The weighted scores were derived by multiplying the difference between the importance mean and the knowledge mean by the importance mean for each topic on the instrument. For example:

$$\begin{aligned} \text{Importance mean} &= 3.4 \\ \text{Knowledge mean} &= 2.9 \\ \text{Weighted knowledge score} &= (3.4 - 2.9) 3.4 = 1.7 \end{aligned}$$

These scores were used to rank order the topics, and the ranks were provided to departments in the college

to assist in selecting topics for Tech Update.

Benefits derived from this approach to technical inservice for vocational agriculture teachers have been numerous. First, a systematic approach to providing technical workshops for teachers has been established. Since teachers and departments have input, the topics provided are appropriate. Time and energy expended in developing workshops should result in high attendance.

Secondly, the concept of an annual updating in technical agriculture has been established with teachers. To be most effective in their classrooms, teachers must keep abreast of changes in the field. Keeping up to date has become a high priority annual event rather than as time permits.

Thirdly, the teachers' professional association, the College of Agriculture, and the Ohio Department of Education have cooperated fully in planning and conducting the inservice sessions. In a time of dwindling resources, such cooperation will maximize the effect of public dollars in providing high quality teaching in the public schools.

Finally, all parties involved realize that providing technical inservice education for teachers is the responsibility of the land-grant college. Continued cooperation will enhance the college as well as the high school programs.

### Planning Calendar

Planning and conducting the Technical Update for Teachers of Vocational Agriculture is a nine-month activity. A typical planning schedule includes:

**September** — Conduct a needs assessment using the Borich Model.

**November** — Planning committee appointed by dean with representation from each department in the college.

**November to February** — Departments develop plans for workshops.

**March** — Selected teachers meet with departments to validate proposed workshops.

**April** — Departments finalize workshops to be offered.

**May 1** — Catalog of workshops and registration materials mailed to vocational agriculture teachers.

**May** — Registration completed by teachers during area teacher meetings.

**June** — Confirmation of enrollment sent to departments in the college.

The success of Tech Update rests with how well the workshops meet the initial criteria: emphasis on new knowledge and skills teachers can use in teaching, emphasis on "hands-on" experience by teachers during the workshops, and emphasis on distribution during the workshops of materials that can be used by teachers and students. The involvement and reactions of the participating teachers of vocational agriculture indicate that Technical Update is timely and relevant to their needs.

### Reference

Borich, Gary. "A Needs Assessment Model for Conducting Follow-Up Studies," *Journal of Teacher Education*, Vol. XXXI, No. 3, May-June 1980.