

TEACHER EDUCATION AND
THE ADULT VOCATIONAL AGRICULTURE PROGRAM

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The 1970's may well be known by historians as "the decade of shortages," both in America and worldwide. The energy crises, decline of world food supplies, depletion of minerals, fish and other natural resources, are well-known examples. The current world agricultural situation has put increasing pressure on American farmers to improve their efficiency; yet, another shortage has developed--the number of adults enrolled in vocational agriculture programs has not kept pace with the need for advanced education demanded of workers in all areas of agriculture. In many states, the number of adults served today as compared with the early 1960's has remained the same or declined. Nationally, there has been a steady decline in actual numbers served and in the percentage of adults enrolled compared to secondary and post-secondary students. Projections for the future do not indicate a drastic change in the enrollment picture. Table 1 contains data which support this conclusion.

Table 1
Enrollment Trends In Agricultural/Agribusiness Education¹

	<u>Enrollment by Year</u>			Projected
	1963	1968	1973	1979
Secondary	488,624	528,000	621,051	815,000
Post-Secondary (2 year technical) est.	2,800	11,000	40,518	70,000
Adult	339,203 (41.0%)*	305,000 (36.1%)*	265,392 (28.6%)*	400,000 (31.1%)
TOTAL	827,827	844,000	927,011	1,285,000

*Percentage of total enrollment for the year indicated.

Concern of National Leaders

Participants in the 1974 National Adult/Young Farmer Seminar² recognized the problem and suggested a number of specific actions to counter the decline in the adult program. Eight major guideline areas were investigated and 41 major thrusts (action steps) were proposed.³ Guideline III, "Preparing Qualified Instructors for Young Farmer and Other Adult Education Programs," emphasized preservice selection and training programs, and proposed a number of action steps. Spe-

cifically, teacher educators were asked to consider and implement the following:

- Determine agencies responsible for each phase of the preparation programs.
- Identify competencies necessary for teaching adults.
- Determine minimum professional instruction needed in preparing beginning teachers.
- Determine unique technical training needed by beginning teachers.
- Determine specific and unique field experiences necessary in teacher preparation.
- Develop a program for recruitment of teachers.
- Determine in-service needs of adult/young farmer instructors.
- Make professional education courses in adult education available to school administrators and staff members.

Role of Teacher Education

Those most directly involved in pre-service teacher education programs, teacher educators and supervising teachers, have an important job to do in getting beginning teachers to provide adult instruction. Teachers new to the vocational agriculture program are faced with increasing demands on their time and abilities. Today, there are more problems involved in having a complete program than was true in the past. Increased enrollments and the addition of programs for off-farm agriculture have contributed to this situation. In a study of teachers of vocational agriculture in Iowa, Kahler⁴ found that first-year teachers, second-year teachers and teachers with three to five years experience rated conducting adult classes the most difficult program area to accomplish. Even teachers who had over five years of experience ranked this program area third in degree of difficulty. Three of the four groups of teachers ranked the offering of adult education ninth in importance out of eleven program areas; the second-year teachers ranked adult programs fifth in importance. Kahler concluded that ". . . if teaching adults is an integral part of the total program of vocational agriculture, this phase of the teacher education program should be expanded and strengthened considerably.

Certainly not all problems in getting new teachers to offer adult programs can be solved by teacher educators. A number of other factors often affect the situation. Vice, in a study of vocational agriculture teachers of adults in Kentucky⁷ found that seven variables were related to whether or not a school offered adult agriculture classes; number of teachers in the department, whether the original contract called for adult classes, successive years of experience in teaching adults, and teacher attitude toward teaching adults were all positively correlated; number of supervisory visits to secondary students were negatively correlated. Number of sessions taught were significantly correlated to years of teaching experience, attendance at adult classes, age and years of experience of the teacher, involvement in adult teaching the preceding semester, years of teaching adults and income from teaching a continuing education course.

Young men and women preparing to become teachers of vocational agriculture are undoubtedly the best hope for improving the commitment of teachers to adult education. In the writer's opinion, many will have had parents or relatives who were in adult courses; some will have been involved in young farmer classes themselves. Others will have observed some aspects of an adult continuing education program. Thus, students entering pre-service programs usually have a positive "set" toward adult education. However, they generally lack confidence in their ability to perform satisfactorily. These conclusions are supported by data collected from students enrolled in student teaching in agricultural education at the University of Kentucky during 1973-74. As can be seen in Table II, students reacted to a list of competencies which were taken from the objectives of the course on adult education in agriculture. A pretest was given prior to the start of the instruction on adult education and a posttest was given after completion of this block of instruction and their applied practice in the centers. The data were analyzed for statistical significance by means of the t-test.

With few exceptions, students were found to be negative or unsure of their ability to perform many tasks on the pretest. There was, however, substantial improvement in perceived abilities after the classroom instruction and field experience during the student teaching period. Clearly, specific emphasis on adult work in the pre-service program does make a difference in the prospective teacher's self-concept; this in turn affects the individual's willingness to undertake adult instruction once he or she is on the job.

The preceding research tends to support the belief teacher educators have held for years, that it is vital to develop a positive attitude in prospective teachers toward adults and to secure early reinforcing experiences in conducting an adult education program.

Preservice teacher education programs which provide adequate theory and practice in adult education will encourage a positive attitude and give students confidence in their abilities to teach adults. Expertise will come later with experience, reinforcement from adult students, and through inservice programs. What is vital at this point is that beginning teachers have the minimum confidence and skills to start their first adult class.

Recommendations for Preservice Involvement

How can teacher educators and supervising teachers better prepare students for teaching adults in vocational agriculture? It seems clear that students in an agricultural teacher education program can benefit from a three-phased approach:

1. Orientation. Early in the student's college career he or she should receive an overview of adult education in general, and specifically as it is operated in the vocational agriculture program. An introductory course which includes a field trip to a successful adult class

TABLE II
Self-Evaluation By Student Teachers Of Their Abilities To Teach Adults In Vocational Agriculture

ABILITIES	MEAN ^a					
	Fall '73		Spring '74		Fall '74	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
	N=10		N=7		N=11	
Arrange for necessary administrative and financial support.	2.9	4.0**	2.7	3.7**	2.6	3.9**
Plan a complete adult program for a voag department.	2.6	4.1**	2.4	4.1**	3.1	3.9**
Complete necessary records and reports.	2.3	3.7**	2.1	3.4*	3.6	4.6**
Provide quality on-job/farm supervision.	3.3	3.8*	3.1	3.7*	3.7	4.4*
Determine and secure an adequate wage for teaching adults.	3.3	4.1	3.0	4.0**	3.2	4.1**
Secure adequate technical reference material.	3.5	4.3**	3.7	4.1	3.6	4.0
Recruit a good class in any community.	3.1	3.8**	3.0	3.6	3.5	3.9
Defend teaching of adults to the school board.	3.8	4.8**	4.3	4.3	3.2	4.0**
Arrange tours for the adult class.	3.9	4.7*	3.9	4.3	3.1	3.9**
Organize an advisory group.	3.2	4.3*	3.6	3.9	3.0	3.7**
Publicize the program.	3.8	4.4*	4.0	4.4	3.2	3.7**
Teach an adult class.	3.7	4.4*	3.6	4.0	3.7	4.2
Help adults solve management problems.	3.3	4.0*	3.4	3.7	3.8	4.2
Plan a class session.	4.0	4.5	3.9	4.4	3.3	3.8
Arrange for and properly utilize resource personnel.	4.0	4.3	3.6	4.0	3.6	4.0
Plan a shop session.	3.4	4.1*	3.9	3.7	3.0	3.9**
GRAND MEAN - ABILITIES	3.4	4.2**	3.4	4.0**	3.3	4.0**

^aKey to Responses: 1=Very Negative, 2=Negative, 3=Unsure, 4=Positive, 5=Very Positive
 *Indicates significantly higher post-test scores (p<.05)
 **Indicates significantly higher post-test scores (p<.01)

is a desirable means to acquaint students with the basics of the adult program and to awaken their interest in further study during later courses.

2. Theoretical Base. A major component in the student's on-campus preparation should include instruction on adult education in agriculture. Instruction should focus on principles and practices in such major areas as: program planning (determining need, setting priorities, deciding on clientele, utilizing advisory groups, securing support and developing the course of study), teaching methodology (planning lessons, securing and utilizing instructional materials, techniques to help adults learn and using community resources) and follow-up (on-farm/job supervision, evaluation, records and reports, and advising a chapter of the Young Farmer Association.)

3. Field Experience. Andrews⁶ in his book, Student Teaching, emphasized the importance of field experience in a professional teacher education program. He recommended observation, participation in schools and communities, clinical experience (student teaching) and internships as means to achieve maximum benefits from this part of teacher preparation. Agricultural teacher educators consider the student's application of professional and technical theory in a local vocational agriculture department setting, typically through student teaching, to be the key to a strong preservice program. A capable supervising teacher at student teaching centers is indispensable to the success of the field experience. In this respect, the supervising teacher may have the most important job in teacher education.⁷ Patterns of student teaching vary with institutions, but if maximum benefit is to be derived from the field experience it is essential that students participate in all major aspects of the local vocational agriculture program, including adult education. Activities of student teachers relative to the local adult program may range from mere observation to the development and teaching of a specialized adult education class.

Conclusion

If the three phases, early orientation to the adult program, a sound theoretical base, and appropriate field experiences, are built into agricultural teacher preparation programs; beginning teachers of vocational agriculture will be encouraged to provide essential educational programs for adults. This is not to say that a total solution to the adult enrollment "shortage" can be effected by teacher education alone. Certainly the many problems related to administration and funding of adult programs must be resolved by local, state and national officials before substantial improvements can be made. However, teacher educators and supervising teachers can make a significant contribution by building the desire and abilities of beginning teachers to provide quality continuing education for adults in the local community. Success or failure in securing this commitment from new teachers could determine whether adult education continues as a part of the vocational agriculture program in the future.

FOOTNOTES

¹Data furnished by H. N. Hunsicker, Program Officer, Agribusiness Education, USOE/DVTE.

²National Seminar for Leaders of Young Farmer and Adult Vocational Education Programs in Agriculture/Agribusiness, Kansas City, Missouri, and sponsored by the U. S. Office of Education in cooperation with the Department of Agricultural Education, Iowa State University, in March, 1974.

³Bundy, Clarence E. "Guidelines for Development and Evaluation of Young Farmer and Adult Programs in Agriculture/Agribusiness," The Agricultural Education Magazine, June, 1974, pp. 274-8.

⁴Kahler, Alan A. Organizational Problems of Beginning Teachers of Vocational Agriculture. Staff Study. The Department of Agricultural Education, Iowa State University, 1974, 123-129 pp.

⁵Vice, Billy J. "Variables Related to Continuing Agricultural Education in Kentucky Schools," PhD dissertation. Columbus, Ohio: The Ohio State University, 1972.

⁶Andrews, L. O. Student Teaching, (New York: The Center for applied Research in Education, Inc.) 1964, pp. 23-4.

⁷Binkley, Harold. "The Supervising Teacher," The Agricultural Education Magazine, December, 1966, pp. 132-3.

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