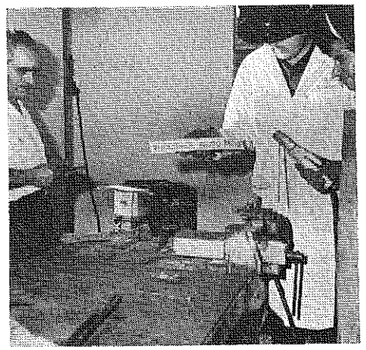
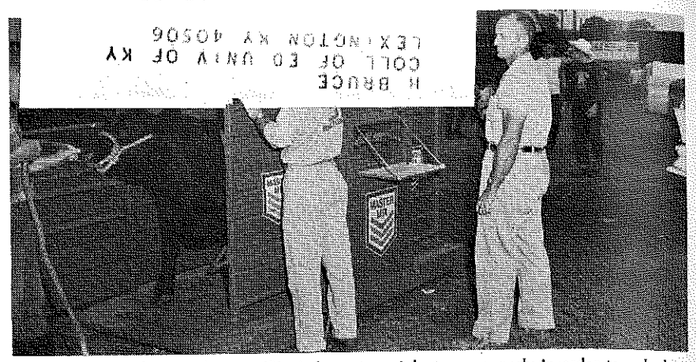


Dr. Forrest Bear, University of Minnestota, teaches a student to weld by using a sign written in Portuguese at the University of Parama, Brazil. (Photo by Harry Kitts, Universiy of Minnesota)



Vocational agriculture students in Illinois learn to weigh steers properly in order to calculate feed conversion ratio. The students are assisted by a feed company representative. (Photo by Paul Hemp, University of Illinois)

Stories in Pictures

GILBERT S. GUILER
Ohio State University

Agricultural education students gain practical experience in calf feeding and management at Andrews University, Berrien Springs, Michigan. (Photo by Neil O. Snepp, Michigan State University)

AGRICULTURAL EDUCATION

Agricultural Education

Volume 41 January, 1969 Number 7

Featuring —

TEACHER EDUCATION

Also —

What's Ahead in 1969? *by H. M. Hamlin*
Vocational Education Amendments of 1968

THE
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EDPRESS

Editorials

From the Editor . . .

Is Vocational Teacher Education the Remedy?


J. Robert Warmbrod

In Publication 1 of *Vocational Education: The Bridge Between Man and His Work,* the Advisory Council on Vocational Education (1968) makes the following comments about the present nature of vocational teacher education: *The practice of structuring teacher education along the traditional occupational category lines perpetuates fragmentation of vocational education, severs it further from general education, and hinders adaptation to labor market change. What is needed is "vocational teacher training," with specialization at advanced levels, not separation by category throughout.*

This is a strong indictment of teacher education programs structured to prepare teachers of agriculture, teachers of business education, teachers of trades and industries, and other specialist teachers. In view of these allegations, are there strengths of traditional vocational teacher education?

The Advisory Council comments as follows:
— *The teacher of vocational education is generally competent in his field, and he knows how to teach.*
— *One thing has not changed during the first half-century of vocational education concerning teacher education, and that is the original enthusiasm for excellence in teaching.*
— *Although there is need for improvement . . . in teacher education, the competence and dedication of instructional staffs is generally impressive.*

The Advisory Council's contention that vocational teacher education structured by occupational categories contributes to the ills of vocational education raises some pertinent questions. The first question relates to the remedy prescribed—What is "vocational teacher training?" Although the details of the proposed remedy are not outlined, some statements in the General Report of the Advisory Council on Vocational Education (Publication 2) hint at some of their views on vocational teacher education.

(Continued on next page)

Guest Editorial . . .

What is Our Role in Changing Teacher Education?


Earl H. Knebel

Never before has vocational education experienced the near unanimous and enthusiastic support of Congress, state legislatures, business and industry, leaders in public school education, and the public. At the same time, we find teachers of vocational education frustrated, confused, and seeking direction. Have we in teacher education and supervision and administration forfeited roles of leadership in planning and developing new and improved programs in vocational education?

One of our most respected colleagues in agricultural education in a recent address stated he believed leaders in agricultural education seem to be uncertain, timid, fearful, conservative, defensive, and disoriented. If this indictment is true and accurate, perhaps it is time to depend upon sophisticated agencies, organizations, and national committees outside vocational education to provide wise leadership. However if we do not accept this indictment, the time has come for those of us within agricultural education to assume more dynamic and aggressive roles as educational leaders, change agents, and innovators. We may need to take ourselves more seriously as professional educators.

National, state, and institutional agencies, organizations, and task force committees concerned with planning and developing programs, including proposed guidelines for teacher education in vocational education, seem to be expanding. Business and governmental agencies generally considered outside the educational circle have become vitally concerned with vocational education and the training of teachers. It is not the purpose of this editorial to challenge or minimize the importance of these various groups as to *intent, competence, respectability,* or *prestige.* All may be necessary, and perhaps we should welcome all the allies we can solicit. On the other hand, uncoordinated recommendations and committee action seem to splinter our efforts and exploit our resourses.

(Continued on next page)

Earl H. Knebel is Head, Agricultural Education Department, Texas A & M University. During 1968 Dr. Knebel served as President of the American Association of Teacher Educators in Agriculture.

From the Editor . . .

— *Although the substantive content of the various areas of occupational emphasis is different, it does not follow that a large part of the professional content of teacher education would show similar differences.*

— *. . . a national teacher education conference which will stress vocational teacher education. The objectives of this conference will include the concept of finding commonalities in teacher education.*

— *Proliferation of teacher education programs among universities and services has emaciated rather than enriched course content, staffing patterns, and resources.*

— *There has been a continued development of teacher education on the basis of occupational categories . . . . This practice does not foster the concept of a broad view of vocational teacher education.*

Does the Council envision a common professional curriculum for all teachers of vocational education? What evidence or logic supports the argument that teacher education by occupational categories contributes substantially to the alleged weaknesses of vocational education? Could the strengths of vocational teacher education enumerated by the Council be, at least in part, a result of teacher education structured by occupational categories? Does the fact of commonalities in professional content among occupational categories necessarily lead to the conclusion that a common professional curriculum for all vocational teachers is preferable? Are the common elements of the professional content of vocational teacher education more important than those elements of professional content that are unique to the various occupational areas? Is the degree of commonality among occupational categories within vocational teacher education any greater than the degree of commonality between vocational teacher education and teacher education in general education?

Teachers of agriculture have been recognized over the years as being among the most competent and best prepared teachers in the public schools. Is this "enthusiasm for excellence in teaching" attributable in any way to the fact that pre-service and in-service professional education for teachers of agriculture has been structured traditionally on the basis of occupational category? Agricultural educators and vocational educators in other occupational categories cannot afford to accept without question the sagacity of both the Advisory Council's allegations concerning the ills created by teacher education structured by occupational categories and their proposed remedy—vocational teacher education. —JRW

THE COVER PICTURE

A committee of South Dakota teachers of vocational agriculture attending a workshop on Teaching Farm Business Management at South Dakota State University confers with Dr. H. W. Gadda (standing left), Workshop Director, and Dr. Edgar Persons (standing right), University of Minnesota, who served as workshop consultant. Teachers seated (left to right) are Lorin Catchpole, Lawrence Venner, and C. R. Hall. (Photo supplied by H. W. Gadda, South Dakota State University)

Guest Editorial . . .

The Vocational Education Act of 1963 has provided unprecedented financial support for vocational education. New as well as traditional leadership forces have become vitally concerned in planning new and improved programs of vocational education. As Jimmy Durante says, "Everyone wants to get in the act." This generalization may be illustrated by identifying a few national organizations and committees crusading to bring change in vocational teacher education:

— The Advisory Committee on Vocational Education, U. S. Office of Education

— Associated Organizations for Teacher Education

— American Association of Colleges for Teacher Education

— National Council on Accreditation of Teacher Education

— American Association of Teacher Educators in Agriculture

— Council on Teacher Education, American Vocational Association

— Committee on Agricultural Education, The Commission on Education in Agriculture and Natural Resources, National Academy of Sciences

— National Outlook Planning Committee on Agricultural Education, U. S. Office of Education

Professional educators assume various roles within the educational spectrum in the decision-making and change process. One authority states that changing people's attitudes, customs, and values is even a more delicate reponsibility than surgery. Too much emphasis is placed upon people's resistance to change. The truth is, people everywhere accept change. No generation performs exactly like the former generation.

In the educational process of change, certain individuals must assume roles of leadership as change agents and others as innovators. Inevitably there must be a genuine outpouring of energy on the part of a few to better the lot of others. Manipulating and involving people through committee activities and group planning are basic strategies of the change process. Change process authorities agree that manipulating people may be justified and considered legitimate and ethical. Generally such leaders of change are well-intentioned, reputable individuals. However due to differences in academic and professional backgrounds, these leaders are not always well-grounded technically and philosophically.

In attempting to appraise the present status of teacher education in agricultural education, there seems to be obvious inefficiency, duplication of effort, and lack of coordination. It appears that no one is fully aware nor truly concerned about inputs and end products of other agencies and organizations. In order to take a practical and realistic position, we in agricultural education have a choice to make. We must determine our roles in effectively "changing" teacher education.

H. M. Hamlin

WHAT'S AHEAD IN 1969?

H. M. HAMLIN, Special Consultant
Center for Occupational Education
North Carolina State University

In view of recent events, it would be foolhardy to predict what will happen in 1969. The best one can do is to spot trends, which may be reversed.

I have had an opportunity to do some trend-spotting in two projects conducted this year: a national study of new designs in vocational, technical, and practical arts education completed with three colleagues and published by the American Vocational Association, and a study of occupational education in North Carolina for the Governor's School Study Commission that is as yet unpublished. Trends were similar in the State and the Nation. Because the North Carolina study has been more intensive than the national study and has dealt more with grassroots situations, I shall draw mainly upon this study.

THE NORTH CAROLINA STUDY

In the North Carolina study a colleague and I interviewed 36 percent of the local superintendents and many of their aides, half of the fifty presidents of institutions in the Community College System, and 60 percent of the presidents of state colleges and universities.

A twenty-member committee associated with the Governor's Commission had accepted three major goals for the development of occupational education in the State. There was nearly universal acceptance of these goals by the persons interviewed. These were the three goals:

— Establishment of a comprehensive program of occupational education including *all* education designed to contribute to occupational choice, competence, and advancement.

— Involvement of all units in the system of public education in providing this type of education.

— Provision as rapidly as feasible of appropriate occupational education for all who need it, want it, and can profit from it, regardless of age, sex, race, socio-economic situation, or any other consideration.

Perhaps the weightiest impression gained was that the local superintendents are under pressures to expand and improve their programs of occupational education. There is special concern about those who leave school at or before high school graduation, who constitute about half of the school population.

There was awareness that a near-vacuum in occupational education exists in grades 7 and 8, which should be filled by providing comprehensive programs in the practical arts and improved occupational counseling. Programs in Industrial Arts and Home Economics were most commonly recommended for these grades, but there was wide agreement that programs in Agriculture and Business are also needed. Some would extend programs in the practical arts into grades 5 and 6, perhaps below these grades.

There was much concern about relating vocational education in the senior high schools to the programs in the Community College System, which have developed rapidly since it was started in 1959.

There was demand for more local directors who could pull together the pieces of occupational education and relieve superintendents of some of their responsibilities for it. There was demand too that the specialists in occupational education in the State Department of Public Instruction and the state colleges and universities get together in helping to develop a balanced and integrated program.

There was a strong desire to broaden and balance the high school programs of vocational education. The major gaps are in industrial education, business education, distributive education, health education, and education for the public-service occupations.

Larger high schools are developing, making possible more varied offerings. Rural high schools with 800 to 1,000 students are becoming common.

Agriculture and Home Economics, the long-established programs, are holding their own. There were many favorable comments about the changes in agricultural education that have been occurring, principally in training for off-farm occupations.

During the past year 50 percent of the high school students in North Carolina were enrolled in federally-aided vocational courses, perhaps the highest percentage in the country. More than two-thirds of the enrollment was in Agriculture and Home Economics. Agriculture enrolled 26.2 percent although seven-eighths of the State's labor force was employed in nonagricultural occupations. Only 21 percent were enrolled in courses in Trade and Industrial Education, Distributive Education, and Vocational Office Education. It is not

(Continued on next page)

"The use of teachers in multiple-teacher departments who are somewhat specialized in their subject matter training will probably be a continuing trend."

(Continued from page 153)

argued that enrollments should correspond exactly to employment by occupations, but discrepancies of this order are certain to be noticed and reduced.

A few superintendents said that they had too many teachers of agriculture since each small high school had had one and these are now being consolidated. Usually the comment, if made, was that there are too many in relation to the number of vocational teachers of other types. One superintendent saw no further need for vocational agriculture since he conceived farming in his county to be carried on by large farmers, some with net incomes as high as $125,000 a year.

It is recognized that most teachers of agriculture have large and loyal followings who would brook no serious interference with them or their work.

Many good teachers of agriculture have been absorbed by the Community College System and some have advanced rapidly in it. One is now Associate Director of the System. Others are presidents or occupy other top-level positions.

There is a shortage of every kind of personnel for occupational education. One county superintendent said he could use thirty additional vocational teachers. Teachers in business, distributive, and industrial education are being recruited largely from business and industry. A shortage of teachers of agriculture is being relieved by a summer program for persons who have graduated from agricultural curricula other than agricultural education. The use of teachers in multiple-teacher departments who are somewhat specialized in their subject matter training will probably be a continuing trend.

STRATEGIES FOR 1969

We are obviously in a rapidly changing situation. Agricultural educators must "roll with the changes."

The field of agricultural education is broad and much of it is still unoccupied. There is room for all now in it and more, but we need to develop our undeveloped possibilities. What are they?

— We could serve more adequately our traditional clientele: farm boys and farmers.

— We could develop in many high schools programs in agriculture specially designed for those who will continue their education in agriculture in post-high-school institutions (community colleges and four-year institutions).

— We could develop nonvocational programs in agriculture for boys and girls from the first grade up with heavy emphasis in the junior high school.

— We could further assist in counseling students generally about opportunities and requirements in agriculture.

— We could be more active in preparing for their first jobs those who drop out of school before high school graduation.

— We could follow our high school graduates in agriculture more carefully, helping them to secure employment, providing on-the-job training, and encouraging further education.

— We could reach many more employed adults with longer and more thorough programs and provide nonvocational education in agriculture for nonfarmers.

— We could find ways of training and placing the disadvantaged, particularly the members of minority groups, in agricultural occupations.

— We could join with other vocational teachers in team-teaching enterprises, contributing as we are able to students in Business Education, Distributive Education, Home Economics, Trade and Industrial Education, education for the auxiliary health occupations, and education for public service. This type of cooperation is especially important in training for off-farm occupations requiring some knowledge of agriculture.

A promising project in Nash County, North Carolina, funded under the Elementary and Secondary Act, indicates the possibilities. There teachers of Trade and Industrial Education, Agriculture, and Home Economics are cooperating in a special project involving 120 boys who receive the equivalent of a course in Introduction to Vocations but also acquire skills and knowledge basic to a number of occupations.

Cooperation with other teachers need not be confined to vocational teachers. Teachers of agriculture could, and sometimes do, make useful contributions to courses in the social sciences and the natural sciences. They could help teachers of English and mathematics to adapt their courses to agricultural students.

It is not implied that one teacher of agriculture in a school system could do all that has been suggested. If there is only one teacher, he should be aware of the possibilities and bold in requesting the staff required to do what is needed.

THE OUTLOOK

New federal funds for vocational education of considerable size are likely to become available in 1969-70. It is time now to plan for their use.

If we fail to do what we could do, it will probably be because of a lack of imagination and initiative on our part and a lack of competent new personnel, not a lack of funds. Teachers should join with supervisors and teacher educators in recruiting for the field which has been very good to most of us. Stress should be put upon the opportunities for advancement within the field and outside it which have come to so many of our colleagues.

The rush to the cities is subsiding as our people become more aware of the cities' almost insoluble problems. A recent national survey showed 26 percent of the large-city residents wanting to leave the cities. Business and industry are coming to the smaller communities. The advantages of rural and small-town living are increasing and are becoming more apparent.

The craze for college attendance has probably reached its irrational peak. With better counseling, more youth are likely to seek rural employment for which the local schools can provide much of the preparation.

"Boards and administrators must be convinced that the role of agricultural education is expanding not dwindling."

We need to . . . serve more adequately farm boys and farmers . . . develop programs for those who will continue their education in agriculture . . . develop nonvocational programs in agriculture . . . assist in counseling students about opportunities in agriculture . . . help high school graduates secure employment . . . reach more employed adults . . . find ways of training and placing the disadvantaged in agricultural occupations . . . join with other vocational teachers in team teaching enterprises.

A growing national population with 95 percent of its workers employed in nonfarm occupations requires an expanding and increasingly efficient agriculture. Some may now be giving little weight to this, but sooner or later the facts of life will have to be faced.

POLICY CHANGES NEEDED

If we are to do what we could do in 1969, changes in local and state policies for agricultural education will often be needed. Some of the changes most commonly needed are these:

— Agricultural education should not be provided only with federal aid, which does not assist in providing it in the elementary schools and the junior high schools. State and local funds should be available to supplement the funds for the federally-aided program. States with more funds than are needed to match federal funds should use them for state purposes, not put all funds into one pot and spend them under federal regulations.

— Almost everywhere the funds available for adult education in agriculture should be increased and more of the time of teachers of agriculture should be bought for use in adult education. Adults frequently constitute 75 to 90 percent of the clientele needing vocational education in agriculture. The advantages in providing appropriate education in agriculture whenever in life it is needed have been demonstrated thoroughly.

— Salaries of teachers of agriculture should be made competitive, not only with those of other teachers, whose salaries also need raising, but with those available in agriculture, business, and industry. Several North Carolina superintendents made the point that they cannot afford to have in their school systems the kind of vocational teachers they could employ at their regular salary schedules.

— We need to help boards and administrators to determine the role in occupational education of each unit in the system of public education and the place of agricultural education in each unit as the roles are reconceived. It is especially urgent that the functions of agricultural education in the senior high schools be restudied to connect them with programs in the elementary and junior high schools and in the community colleges.

— We must accept and adapt to the new vocational programs that are coming into the larger high schools which are emerging. Boards and administrators must be convinced that the role of agricultural education is expanding, not dwindling.

— We must adapt to the large farm enterprises that are becoming common all over the country. The needs of the operators and the laborers on these farms must be reassessed and a plan for meeting them developed which may include cooperative efforts by the local schools, the area schools, and the colleges of agriculture.

— Finally, we must become *properly* involved in the policy decisions affecting agricultural education. The entire teaching profession, long reluctant to become concerned about public policy for education is finally turning its attention to it, not merely to obtain better salaries and working conditions but to get better schools. Teachers of agriculture are known for their initiative and responsibility; both can be used to secure from the public and its representatives the conditions essential for further growth of their field, now only partially developed.

Proper involvement in policy-making demands recognition of boards of education as the official and actual policy-makers with no attempt to bypass or intrude upon their authority. The challenge before the teachers is to secure opportunities to participate in the development of the policies which boards will enact. Boards must be led to welcome the suggestions of teachers and to submit policy proposals to teachers before they are enacted. Teachers of agriculture should seldom make policy proposals unilaterally. They need to know the reactions of other teachers. Frequently proposals should receive staff approval. The superintendent is, of course, the person through whom policy proposals should be transmitted to a board.

OPPORTUNITIES AND HAZARDS IN 1969

Our future in 1969 will depend upon our environment and how we react to it. Forces outside our field, some of which we can influence, will limit what we can do or open new opportunities. Our planning cannot be done in isolation. There are many with whom we should confer. But a man with a well thought-out plan can accomplish much. A man without one may become the victim of trends and forces he has not foreseen. "It's the set of the sail and not the gale" that often determines what can be accomplished.

These are not easy times in which to plan for the future, but in 57 years of association with agricultural education as student and professional educator I haven't seen any times that were easy. We have survived and continued to grow, yet we must avoid the indictment of the superintendent, not a North Carolina superintendent, who said of teachers of agriculture: "The best thing they do is survive."

THE COOPERATING TEACHER'S ROLE IN STUDENT TEACHING

HERBERT SCHUMANN
Vocational Agriculture Teacher
Needville, Texas

Herbert Schumann

The experiences obtained during student teaching are probably the most crucial activities involved in the development of prospective vocational agriculture teachers. During student teaching attitudes and practices are developed that will remain a part of the young teacher throughout his professional career. The cooperating teacher plays a key role in providing the experiences necessary to become a successful teacher. Some cooperating teachers have a "sink or swim" philosophy; however, if the student teacher is to develop desirable teaching skills and personal habits, the guidance and supervision of the cooperating teacher is imperative.

Student teaching can be divided into three steps. First, the student teacher should receive a thorough orientation to the local program of vocational agriculture. Next, student teachers should assume some of the responsibilities of the teacher. The final step is the maturation of the student teacher.

Orientation

Orientation should begin as soon as the student teacher arrives at the school. The cooperating teacher should explain the policies of the school and vocational agriculture department. There should be no misunderstanding concerning the importance of following the rules and regulations. This is not an area for experimentation on the part of the student teacher.

Orientation takes a great deal of time and energy on the part of the cooperating teacher. Some student teachers grasp an understanding of the experiences more rapidly than others, but the cooperating teacher will do well if he does not take too much for granted on the part of the student teachers. Most student teachers will be looking for practical techniques to assist them in effectively performing their duties. The practices used by a successful vocational agriculture teacher are a good starting point. After the student teacher has mastered this workable system, he may choose to deviate in view of his strengths and weaknesses.

A strong instructional program is basic to the development of a good vocational agriculture department. After observation, the cooperating teacher should give the student teacher an opportunity to ask questions concerning classroom management and teaching. The same approach should be used with the student teacher in working with non-classroom activities.

Participation

The second step in the professional growth of the student teacher involves active participation in the local program of vocational agriculture. Prior to giving the student teacher responsibility for classes or other activities, the cooperating instructor should make it clear to the pupils that the student teacher will be their teacher. The pupils should understand that the student teacher is their teacher and that they will be expected to follow his directions as they do the directions of their regular teacher.

The student teacher should be encouraged to establish a personal interest in the development of each pupil. Because he is nearer their age, the pupils may identify more readily with the student teacher than they do with their regular teacher. The student teacher has a unique opportunity to "light a spark" in the minds of those in his classes.

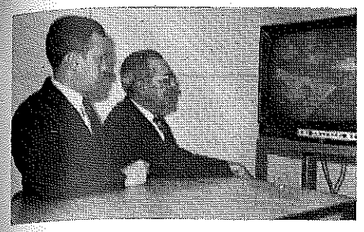
It is important that the cooperating teacher observe the classes of the student teacher. The cooperating teacher should be an observer and not a participant. Only in extreme cases should he assume any control over the class. This would only undermine the confidence of the students in their new teacher.

Supervision Important

Soon after the end of the class period the cooperating instructor and the student teacher should discuss the student teacher's performance and the operation of the class. The cooperating teacher should accentuate the positive aspects of the student teacher's teaching. The student teacher should be developing professional competence and at the same time gaining confidence as a teacher.

The first two steps require a great deal of time and effort on the part of the cooperating instructor. If he has done these tasks well the maturation of the student will be the consummation of his efforts. The student teacher is now ready for experimentation with other techniques of teaching. The cooperating teacher should encourage him to develop an individual approach in formulating a vocational agriculture program.

The cooperating teacher has a tremendous responsibility and a unique opportunity to guide young men in becoming successful vocational agriculture teachers. His satisfaction comes in knowing that he has made a worthy contribution to his profession.



Marvin Creager (left), student teacher in agricultural education at Kansas State University, and Professor Howard R. Bradley evaluate Marvin's teaching effectiveness by use of video-tape.

Video-Tape Recordings in Student Teaching

HOWARD R. BRADLEY, Teacher Education
Kansas State University

One of the new and promising developments in pre-service teacher education in agriculture is in the use of video-tape. This medium offers an opportunity for student teachers to observe themselves. This observation leads directly to self-evaluation of their teaching.

Experience with Video-Tape

Video-tape recordings of student teachers in agricultural education were first made at Kansas State University in the fall of 1965. An evident advantage was the opportunity for the student to see himself and the class in a teaching-learning situation thus enhancing the learning process. Since that time many of the student teachers in agricultural education as well as student teachers in other curricula in the College of Education have had twenty minute tapes made by an audio-visual staff member and a graduate assistant in cooperation with the university supervisor.

Several problems were encountered in video-taping student teachers. First there were the problems of maintaining a schedule which had to be made far in advance and the ability of the traveling staff to keep on time when students were located at centers considerable distances apart. There were mechanical problems and difficulties in recording in classrooms where large amounts of window space caused lighting difficulties. There was a cost factor both in time and in money.

Recommendations

Our experience leads to these recommendations. First, clear with school officials for permission and a mutually convenient time for making the video tapes. Second, advise the local supervising teacher and student teacher of the necessity of informing the students and discussing some of the mechanics involved. Uninformed students are curious about the technical aspects of the procedure and this in turn creates an unnatural classroom atmosphere. A third recommendation is that the university supervisor become proficient in the use of the equipment for the most effective use of the tape in the playback evaluative session with the student teacher. The fourth suggestion has to do with the length or time of the tape. In the beginning it was thought that a one-hour time period was necessary. It has become the opinion of persons involved that twenty minute tapes are quite adequate.

A New Plan

The original equipment used for taping proved to be heavy, awkward to manage, and costly to operate. A new plan for taping was put in operation during the fall semester, 1968. One-half inch recording systems including video recorder camera and twelve-inch play back monitor are now being used. Audio-visual staff members and graduate students are assigned to develop the necessary skills for maximum use of the video recorder. There are training sessions for staff members in the use of the equipment for the weight and size of the equipment enable the university supervisor to transport it in an automobile while observing student teachers.

This plan enables the supervising teachers to play back the tape at the conclusion of the class period. It offers an opportunity for the student teacher and the supervising teacher to follow the progress of the student teacher. This procedure is useful for identifying specific areas for improvement in teaching techniques. Other advantages are that this method can serve as a substitute for classroom observation by the university supervisor in case of unforeseeable conflict in scheduling. It can also be used for the purpose of refreshing the supervising teacher's memory when evaluating a given student teacher at the end of the student teaching period.

The use of video-tapes in teacher education is in its infancy. It appears to be a medium that has great potential for improving the effectiveness of teachers. As costs decrease and ease in handling the equipment improves, greater use of video-tapes in teacher education is anticipated.

Themes for Future Issues

February	***Agricultural Education in Area Schools***
March	***Student Organizations***
April	***Teaching — Instructional Materials***
May	***Program Planning and Curriculum Development***
June	***Public Information Programs***
July	***Policy and Policy-Development in Agricultural Education***

Teacher Education for Program Development in Off-Farm Agricultural Occupations

FLOYD G. McCORMICK, Teacher Education
University of Arizona

HAROLD R. BINKLEY, Teacher Education
University of Kentucky

Since the passage of the Vocational Education Act of 1963 hundreds of programs in off-farm agricultural occupations have been launched. If we could get the facts, there are some programs that we would be proud of; others we would not want to claim. Perhaps there is a correlation between careful and deliberate planning and the degree of success in developing new programs.

TYPES OF PLANNING

There is no doubt but that various degrees of planning have accompanied the development of programs in off-farm agricultural occupations. At one end of the scale, some teachers decide to start new programs on their own with little or no advance planning. A supervisor may urge teachers to develop new programs but offer little help. A speaker at the state conference may list guidelines for developing new programs and expect teachers to launch new programs. At the other end of the scale, some states have developed summer workshops during which teachers developed plans for starting new programs. A few states have included some occupational experience for teachers in off-farm agricultural occupations.

Most agricultural educators will agree that the types of planning described above, each by itself, fall short of the desired planning needed to develop the competencies teachers need to initiate and conduct dynamic programs in off-farm agricultural occupations. Unplanned and careless efforts in developing programs in off-farm agricultural occupations will result in many failures, a poor image, and abandonment of efforts to provide this much needed type of education.

QUALITY PROGRAMS

In farmer training programs the teacher worked with the farmer and his son on the home farm. The teacher worked effectively with these persons for no one else was involved. This is not so in the development of programs in off-farm agricultural occupations.

School administrators, other vocational teachers, and other teachers in the school have a part in program development if quality programs are to be developed. Persons in agricultural business and industry should have a part in conducting a feasibility study to determine the need and the training possibilities for programs in off-farm occupations. They should help in deciding what type of program can be supported best with good training stations in the community. The resources of the Labor Office and the Employment Security Office must be brought to bear on program development. The thought and study of these groups under teacher guidance will help in planning the type of program that should be initiated, the kinds of experiences that should be provided, the students to be enrolled, and the organization that should exist for providing the instructional program. The result should be a sound and functional program.

Proper and adequate involvement of school administrators, persons in general education, other vocational teachers, and people in agricultural business and industry in determining the need for and in developing the program will build *understanding* of the program. Understanding is necessary for *cooperation* in carrying out the program. Both *understanding* and *cooperation* are essential features for improving the image of off-farm agricultural occupations programs.

A CONCEPT OF PLANNING

Perhaps most of us do too much in haste. We suggest more planning and more time to do the planning in developing new programs to assure that the development is thorough and sound. If quality programs are to result, the developmental scheme must provide adequate planning and ample time to develop the necessary insights and understandings on the part of teachers, businessmen, administrators, and other school people. A four-phase plan for program development in off-farm agricultural occupations is suggested. This plan develops breadth and thoroughness; it involves many people; it builds motivation and support for the program. The four phases encompass a fifteen-month period.

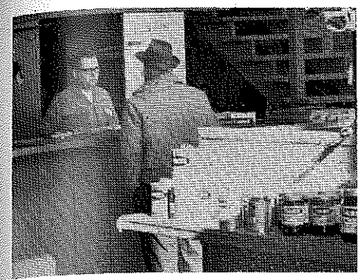
Phase I

Teachers are brought together for a two or three-week intensive course during the summer. During the course they study in depth problems such as the following in developing "a plan of action" for the school year:

Floyd G. McCormick

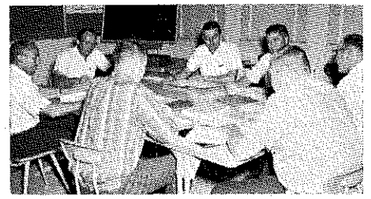
The four-phase plan for program development in off-farm agricultural occupations described in this article was initiated by Professors McCormick and Binkley at the University of Arizona in July, 1968. The teachers participating in the program are now in Phase II of the plan.

Harold R. Binkley



(Right)
During Phase I teachers participate in a workshop for intensive study of questions involved in planning programs in off-farm agricultural occupations.

—What is the modern concept of vocational agriculture?
—What is involved in launching a program in an off-farm agricultural occupation?
—What are the significant patterns of providing training in off-farm agricultural occupations?
—How determine the training possibilities in the community?
—How develop an understanding of the program on the part of school administrators, guidance counselors, and other school people?
—How conduct a feasibility study to determine the needs for a program?
—How organize and use an advisory committee?
—How develop student understanding of the program?
—How develop parent understanding of the program?
—How develop memorandums of understanding?
—How develop training plans?
—How set up and develop training stations?
—What labor laws affect student educational programs?
—What is involved in arranging for a certificate to employ a student-learner?
—What wages should students be paid and how much occupational experience should students receive in their training programs?
—What students should be enrolled in the special class in agricultural occupations?
—What class and work schedules should we have?
—How much teacher time is required to develop and put on a program in off-farm agricultural occupations?
—How keep the school and the public informed of the program?
—What timetable should the teacher have for getting a program developed and underway?



(Left)
In Phase III teachers who are developing programs in agricultural mechanics will receive fifty hours of experience in agricultural machinery businesses, including work in the parts department.

Phase II

Each teacher follows his "plan of action" which is a timetable for getting specific things accomplished in the local community during the school year. A timetable for setting up and starting a program might look something like the following:

Discuss program possibilities with school administrators	August
Discuss program possibilities with men in agricultural businesses	September
Conduct a feasibility study to determine the need for a program in off-farm agricultural occupations	November
Develop a plan to keep the public informed on the development of the program	November
Conduct a study to determine the training possibilities in off-farm agricultural occupations in the community	December
Determine the program to offer	January
Set up and use an advisory committee	January
Have school administration set aside enough teacher time to do the job	March
Develop criteria for selecting students	March
Arrange for training stations	March
Develop student and parent understanding of the program	April
Develop tentative training plans	May
Decide on the major units of instruction to include in the course with the competencies to be developed in each unit	May

Phase III

During the following summer teachers who have been successful in following the timetable return to the university for another two- or three-week period of final planning and preparation for launching their programs. This period should include a minimum of fifty hours of occupational experience in the type of agriculture businesses in which their students are to be placed for experience programs. Prior planning by teacher educators will assure that the occupational experiences of teachers will be of high quality and that the teachers involved will have many experiences appropriate for students in their experience programs.

The remaining part of the intensive course should include the following:

—Finalizing the course of study: determining the units, the objectives, and content for each unit; deciding on the number of days to devote to each unit; and determining when each unit will be taught during the year.

—Arriving at decisions on these problems: What teaching procedures shall we use? How develop training plans? What supervision should be provided students by the cooperator and by the teacher? What records should be kept by the teacher and by the students? What evaluation should be made of the training? What follow up should the teacher make after the training?

Phase IV

Teachers should start program at the beginning of fall semester following the summer workshop.

PROGRAM STANDARDS

Quality programs in off-farm agricultural occupations are a must. Standards must be set to compliment and supplement the plans for program development. A few states have developed plans for programs in off-farm agricultural occupations and standards for these programs. A state plan indicating standards is needed to provide teachers guidance in planning and developing programs. The minimum requirements for approving a program should be made clear. Standards should be indicated for facilities and equipment to support the program, experience programs, qualifications of teachers, and adequate teacher time to do the job.

One Approach for Relieving the Teacher Shortage

V. B. HAIRR, Supervision
North Carolina Department of Public Instruction

V. B. Hairr

During the past several years North Carolina, like most other states, has encountered a serious shortage of teachers of agriculture. Many factors contributed to this shortage. Probably the most significant factors are employment of teachers of agriculture in administrative and teaching positions in Technical Institutes and Community Colleges, movement of teachers into administrative positions in secondary schools, higher paying job opportunities for teachers and agricultural education graduates, gradual increase in the average age of teachers resulting in a slight increase in retirements, and very little increase in enrollment of students in the teacher education programs at the two teacher education institutions.

As a result of the shortage of certified teachers, several departments were closed. Expansion of the program into new schools and a broadening of the program in many schools currently offering agriculture were greatly curtailed. Efforts to secure teachers from other states usually provided a very limited number.

The Approach

After recruiting efforts failed to meet the need for teachers, the agricultural education staffs began looking for new sources of teachers to relieve the situation until the number of graduates increased correcting the shortage. Since the pattern of course offerings in vocational agriculture included a number of specialized options designed to prepare students for off-farm agricultural employment, it was only natural to think in terms of certifying technical agriculture graduates to teach specialized courses. Where possible these persons would be located in multiple teacher departments so the new teacher would be working with an experienced teacher.

This was the approach followed. As a result a number of technical agriculture graduates were issued Provisional Vocational Certificates and employed as teachers. Some of these teachers also had experience in agricultural business and industry which added to their competency for teaching students for employment in off-farm agricultural occupations.

The Program

The three major requirements for a Provisional Vocation Certificate are the individual must hold a B.S. or higher degree in agriculture, must be recommended to the Supervisor of Certification by the State Supervisor of Agricultural Education, and must complete at least three semester hours of prescribed inservice education each year for four years for a total of twelve semester hours.

The inservice education program is the responsibility of the Agricultural Education Department at North Carolina State University. The inservice program consists of courses, with follow-up in the field, which is accepted as a substitute for the regular student teaching program. In the beginning the provisionally certified teachers were enrolled in a special problems course which required only periodic meetings. Later a schedule of three-weeks courses during the summer, each carrying three semester hours of credit, was developed.

During the past summer a six-semester-hour course was conducted for the teachers which more nearly followed the agricultural education student teaching program. The program was designed to provide on-campus instruction and off-campus teaching experience and planning. The on-campus phase of the course included visits to schools. Experienced teachers were used as resource persons and consultants. During the off-campus phase of the course each enrollee spent a week in a nearby school working with and observing an experienced teacher. Twenty teachers enrolled in this course. Since these teachers hold certification lower than a regular certificate, each received financial assistance in the amount of $75 through a state supported scholarship loan program.

Teacher education and supervisory staff members work very closely with the teachers as a part of the follow-up instruction. Upon completion of twelve hours of prescribed inservice education a provisional certificate is converted to a regular certificate. Currently several of these teachers have Masters degrees in technical agriculture and a number are considering working toward a graduate certificate in agricultural education. The thirty-three provisionally certified teachers currently employed in North Carolina have degrees in the following specialized areas of technical agriculture: general agriculture, agronomy, agricultural engineering, animal science, horticulture, agricultural economics, and forestry.

Another Possibility

Another possible source of personnel to relieve the shortage of teachers and increase the effectiveness of present teachers being considered is the post-high school graduates of two-year technical agriculture programs who might serve as assistant teachers. In multiple teacher departments these persons could render a valuable service to the program. At least this is a possibility.

C. E. Richard

ASSISTING TEACHERS IN CURRICULUM INNOVATION

C. E. RICHARD, Teacher Education
Virginia Polytechnic Institute

During the past few years agricultural educators in Virginia have revised the high school agricultural education curriculum to include off-farm occupational experience programs. The revised program includes basic courses in Agricultural Science and Mechanics for the first two years. Six options are offered for the third and fourth years. These options are Production Agriculture, Agricultural Machinery Service, Agricultural Business, Ornamental Horticulture, Conservation and Forestry, and Food Technology.

Implementing the basic courses and the production agriculture option was accomplished with little difficulty because the programs were similar to the conventional program which teachers already had established. Developing off-farm occupational experience programs posed some problems as would be expected when new programs are undertaken. Some problems encountered were: determining which options to offer; developing policies, procedures, and guidelines to follow in establishing the new programs; and securing qualified personnel, adequate facilities, administrative understanding and support.

Credit Course for Teachers

To assist teachers with many of these problems, the supervisory and teacher education staffs organized and offered a credit course entitled Curriculum Development in Agricultural Education. The course is taught out in the state during the regular school term. The plan is to offer the course in each section of the state at a location where every teacher can attend with a minimum amount of time, travel, and cost. Little effort was needed to get teachers to enroll for they had been asking for such a course. The State Department of Education paid their tuition through a scholarship fund.

The course was first offered during the spring quarter of 1967. Nine courses have been conducted by members of the teacher education staff assisted by the supervisory staff and the State Employment Service. Approximately 60 per cent of all agricultural education teachers in Virginia have completed the course. The classes are conducted once a week for a three-hour session starting at 4:30 p.m. and ending at 8:30 p.m. with an hour for dinner.

Topics Emphasized

The course is devoted mainly to developing off-farm occupational experience programs with emphasis on the following topics: basic concepts, trends, and implications for agricultural education; determining which options to offer; developing instructional objectives; developing policies, procedures, and guidelines for implementing the program; organizing and using consulting committees; initiating and maintaining support for the program; selecting and enrolling students; selecting training centers and placing students; preparing agreements and training plans; understanding child labor regulations; coordinating and evaluating the program; placing and follow-up of students; and developing the curriculum.

Teacher Activities

To aid each teacher in determining the off-farm occupational experience programs to offer in his department, each teacher was asked to make an off-farm agriculture-related job survey in his school service area, a student interest survey in his school and its feeder schools, and an analysis of the follow-up records of former students. The results were quite revealing and assisted greatly in determining the options that should be offered. Other criteria used in determining what programs should be offered were present, needed, and available qualified personnel; present and needed facilities, administrative understanding and support; and available training stations.

At the conclusion of the course the teacher(s) in each department represented had determined an instructional program that he (they) believed should be offered in his (their) school for high school students and young and adult groups including anticipated enrollments; additional facilities and equipment needed for conducting the program; personnel needed including special and in-service training needs; how he (they) proposed to gain support for the revised program; and specific procedures he (they) planned to follow in establishing the program.

The teacher's interest, enthusiasm, and participation indicate that the course has been exceptionally well received. They have developed a feeling that the new programs will more adequately meet the needs of their students.

Vocational Education Amendments of 1968

On October 16, 1968, President Lyndon B. Johnson signed into law the Vocational Education Amendments of 1968 (Public Law 90-576). The Act amends and extends the Vocational Education Act of 1963 and repeals all prior national vocational education legislation with the exception of the Smith-Hughes Act. However, funds appropriated by the Smith-Hughes Act are to be considered as funds appropriated under the provisions of the Vocational Education Amendments of 1968.

TITLE I — VOCATIONAL EDUCATION

Purpose

" . . . to authorize Federal grants to States to assist them to maintain, extend, and improve existing programs of vocational education, to develop new programs of vocational education, and to provide part-time employment for youths who need the earnings from such employment to continue their vocational training on a full-time basis, so that persons of all ages in all communities . . . will have ready access to vocational training or retraining which is of high quality, which is realistic in the lght of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training."

Funds

To assist states for purposes designated as "State Vocational Education Programs" and "Research and Training in Vocational Education," the following appropriations are authorized:

Fiscal Year	Amount
1969	$355 million
1970	$565 million
1971	$675 million
1972	$675 million
1973 and each succeeding year	$565 million

Annual appropriations are authorized also for sums as may be necessary for administration and development of state plans, activities of advisory councils, and evaluation and dissemination activities. Also included is an additional authorization of funds for programs for the disadvantaged.

With the exception noted in the next paragraph, 90 per cent of the funds appropriated under the provisions of these authorizations is to be made available for distribution to states for vocational education programs. Ten per cent of the funds are to be used by the Commissioner of Education or distributed to the states for research and training in vocational education.

From the funds appropriated the Commissioner of Education is required to reserve an amount not to exceed $5,000,000 annually for transfer to the Secretary of Labor to finance national, regional, state, and local studies and projections of manpower needs. The remaining funds are to be allotted to the states on the basis of the number of persons in the various age groups needing vocational education and the per capita income in the respective states. The allotment formula remains the same as in the Vocational Education Act of 1963.

National and State Advisory Councils

The Act creates a National Advisory Council on Vocational Education consisting of twenty-one members to be appointed by the President. At least one-third of the membership must be representatives of the general public. The National Council must meet not less than four times a year. The responsibilities of the National Council include:

— advising the Commissioner of Education concerning the preparation and administration of general regulations concerning vocational education programs,

— reviewing the administration and operation of vocational education programs, making recommendations, and preparing annual reports of findings and recommendations, and

— conducting independent evaluations of programs.

For fiscal year 1969, an appropriation of $100,000 is authorized for the National Council to engage required technical assistance. Appropriations of $150,000 are authorized for fiscal years 1970, 1971, and 1972.

Each state receiving funds under the provisions of the Vocational Education Amendments of 1968 must establish a State Advisory Council which is appointed by the Governor or by an elected State Board. The responsibilities of State Advisory Councils are:

— advising the State Board on the development of and policy matters concerning administration of the State Plan and in the preparation of long-range and annual plans for vocational education in the state,

— evaluating vocational education programs, services, and activities including the publishing and distributing of results, and

— preparing and submitting through the State Board to the Commissioner of Education and the National Advisory Council an annual evaluation report.

The Commissioner of Education is authorized to allot annually funds to a State Advisory Council for carrying out its functions in an amount not exceeding $150,000 but not less than $50,000. A State Advisory Council must hold at least one public meeting each year at which the public is given opportunity to express its views concerning vocational education.

State Vocational Education Programs

Ninety per cent of the funds appropriated under the authorizations indicated earlier are to be distributed to the states to assist them in conducting vocational education programs. Federal funds may be used for the following purposes:

— Vocational education programs for high school students, including programs designed to prepare them for advanced or highly skilled postsecondary vocational and technical education.

— Vocational education for persons who have completed or left high school and who are available for study in preparation for entering the labor market. Not less than 15 per cent of a state's total allotment must be used for this purpose annually.

— Vocational education for persons who have already entered the labor market and who need training and retraining to achieve stability or advancement in employment.

— Vocational education for persons who have academic, socioeconomic, or other handicaps that prevent them from succeeding in the regular vocational education program. Not less than 15 per cent of a state's total allotment must be used for this purpose annually. Additional appropriations of $40 million for fiscal years 1969 and 1970 are authorized for this purpose.

— Vocational education for handicapped persons who cannot succeed in the regular vocational education program without special educational assistance or who require a modified vocational education program. At least 10 per cent of a state's total allotment must be used for this purpose annually.

— Construction of area vocational education school facilities.

— Vocational guidance and counseling to aid persons in the selection of and preparation for employment.

— Provision of vocational training through arrangements with private vocational training institutions.

— Ancillary services and activities including teacher education and supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, and improved state administration and leadership.

Research and Training in Vocational Education

Ten per cent of the funds appropriated under the authorizations indicated earlier are to be made available for research and training in vocational education. The Act authorizes the Commissioner of Education to use 50 per cent of the funds available for research for grants to and contracts with institutions, state boards, and local education agencies to support research and training programs and experimental, developmental, or pilot programs. The remaining 50 per cent of the funds for research are to be used by State Boards for paying up to 75 per cent of the costs of State Research Coordinating Units and for grants to pay 90 per cent of the costs of research programs and projects.

Exemplary Programs and Projects

Additional funds are authorized to stimulate new ways to create a bridge between school and earning a living for young people who are still in school, who have left school either by graduation or by dropping out, or who are in postsecondary programs of vocational preparation. The funds are to be used also to promote cooperation between public education and manpower agencies. One-half of the funds authorized for this purpose are to be used for projects approved by the Commissioner of Education. One-half of the funds are to be allotted to the states. The appropriations authorized for this purpose are:

Fiscal Year	Amount
1969	$15.0 million
1970	$57.5 million
1971	$75.0 million
1972	$75.0 million

Residential Vocational Education

To demonstrate the feasibility and desirability of residential vocational education schools, the Act authorizes appropriations for use by the Commissioner of Education for making grants for the construction, equipment, and operation of residential schools to provide vocational education for youth

(Continued on next page)

PRESIDENT JOHNSON SIGNS THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 in the East Room of the White House, October 16, 1968. Pictured are (left to right) Representative Roman C. Pucinski, Illinois; Representative William Ayers, Ohio; President Johnson; Senator Gaylord Nelson, Wisconsin; and Secretary of Health, Education and Welfare Wilbur Cohen. (Consolidated News Pictures)

Vocational Education Amendments of 1968

(Continued from page 163)

from fifteen to twenty-one years of age. The appropriations authorized are:

Fiscal Year	Amount
1969	$25 million
1970	$30 million
1971	$35 million
1972	$35 million

An additional authorization of $15 million annually for fiscal years 1969 and 1970 is made for grants to states to provide residential vocational education facilities. In addition, appropriations are authorized for making grants to states to reduce the cost of borrowing funds for the construction of residential schools and dormitories.

Consumer and Homemaking Education

Funds are authorized in the Act for educational programs which encourage home economics to give greater consideration to social and cultural conditions, especially in economically depressed areas; encourage preparation for professional leadership; are designed to prepare youths and adults for the role of homemaker or to contribute to the employability of persons in the dual role of homemaker and wage earner; include consumer education programs; and are designed for persons who have entered or are preparing to enter the work of the home.

One-third of the federal funds made available for consumer and homemaking education must be used in economically depressed areas or areas with high rates of unemployment for programs designed to assist consumers and to help improve home environments and the quality of family life. The appropriations authorized are:

Fiscal Year	Amount
1970	$25 million
1971	$35 million
1972	$50 million

Cooperative Vocational Education Programs

Funds are authorized for allocation to states for expanding cooperative work-study programs through financial assistance for personnel to coordinate programs, providing instruction related to work experience, reimbursing employers for certain added costs incurred in providing on-the-job training, and paying the costs of certain services including transportation of students. Funds authorized for cooperative education are:

Fiscal Year	Amount
1969	$20 million
1970	$35 million
1971	$50 million
1972	$75 million

Work-Study Programs

Appropriations of $30 million for fiscal years 1969 and 1970 are authorized for allotment to states for work study programs for vocational education students who need financial assistance to commence or continue a vocational education program.

Curriculum Development in Vocational and Technical Education

Funds are authorized to enable the Commissioner of Education to provide assistance to state and local educational agencies in the development of curriculums for new and changing occupations and to coordinate improvements in and dissemination of existing curriculum materials. Authorizations of appropriations for curriculum development are:

Fiscal Year	Amount
1969	$ 7 million
1970	$10 million

TITLE II — VOCATIONAL EDUCATION LEADERSHIP AND PROFESSIONAL DEVELOPMENT

Title II of the Vocational Education Amendments of 1968 amends The Higher Education Act of 1965 to provide training and development programs for vocational education personnel. Funds are authorized for Leadership Development Awards and Exchange Programs, Institutes, and Inservice Education. Appropriations authorized for vocational education leadership and professional development are:

Fiscal Year	Amount
1969	$25 million
1970	$35 million

Leadership Development Awards

Leadership development awards will be available for providing opportunities for experienced vocational educators to spend full time in advanced study of vocational education for a period not to exceed three years in length.

Exchange Programs, Institutes, and Inservice Education

Funds will also be made available to provide opportunities to up-date the occupational competencies of vocational education teachers through exchanges of personnel between vocational education programs and commercial, industrial, or other public or private employment related to the subject matter of vocational education. Also programs of inservice teacher education and short-term institutes for vocational education personnel will be provided.

Workshop for Tennessee Teachers

In-service education for twenty-five vocational agriculture teachers in East Tennessee during 1968 included a one-week workshop on ornamental horticulture held in August at Cleveland Community College. The workshop was organized by Herbert Lackey and Charles Arnold, vocational agriculture teachers at Bradley County High School, Cleveland, Tennessee. The specialist instructor for the course was Charles Varnell, a former student of vocational agriculture at Bradley County High School, who operates the Easterly-Varnell Nurseries in the Cleveland and Chattanooga area.

Topics covered during the workshop included determining landscape needs, drawing landscape plans, planning landscape designs, selecting plants, trees, shrubs, and flowers, fertilizing, and maintaining the landscape. Laboratory experiences were gained on the nursery and sales facilities of the instructor, at public buildings in the area, and on the campus of the Community College.

L. M. McILWAIN
Vocational Agricultural Teacher
Clinton, Tennessee

For Beginning Teachers . . .

PLAN FOR A LONG TEACHING CAREER

CLIFFORD VAN BERKUM
Vocational Agriculture Teacher
Swea City, Iowa

Clifford Van Berkum

Will you see fewer familiar faces at your annual conference this summer? If your state is typical, it will appear that the faces of teachers become younger each year and that some of the "old timers" are no longer in teaching.

Is this a problem or a good omen for the teaching profession? It is nothing to be excited about when some of our best teachers go into industry and other related occupations. They can and do help the vocational agriculture program in these positions. There are many reasons for a teacher changing positions or leaving the profession. Some are impersonal while others are for selfish and biased reasons. If you are a beginning teacher of vocational agriculture, here are a few thoughts to help you plan for a long teaching career.

Set Goals

Read the Vocational Agriculture Teacher's Creed and decide how serious you are about teaching. When you read the Creed do you get a proud feeling swell up inside you? When they hand out the tenure pins at conference do you plan on someday receiving one? If you can feel this pride and hope, this article is written for you.

Like all pursuits, one must set a few goals to be successful in teaching. The first couple of years of teaching are no doubt the hardest. Don't give up in frustration if everything does not work out as easily and exactly as you expected. Why not set a goal of at least five years in one position before you seriously think of getting out of teaching? There will be a few teachers who should not wait that long, but take time to evaluate yourself thoroughly before leaving. Be enthused and proud of your position. Negativism is not conducive to success and pride but generally leads to contempt and self disrespect. Build yourself up but not to the point of being boastful or arrogant.

Ask Wife to be Partner

Perhaps the first year is the most difficult for a young, married teacher. The wife will not be too pleased if you are going to be gone nearly every evening. She may have envisioned married life with you at home each evening. Be sure you warn her of this fact before you ask her to become a vocational agriculture teacher's wife. Try to impress her that she has not only married you but is to become a partner in your job as well. Soon she will understand the importance of your position and will share in your work.

Be Enthusiastic

Be enthusiastic about your profession. There is no reason why a teacher should have to be on the defensive about his job. Be sure that people are aware of your program's good points and they will forgive your mistakes. Proper use of your adult council will help eliminate mistakes during the first few years. Even though you may think you are proficient, you probably have noticed there are times when you feel entirely inadequate. Enthusiasm can carry you a long way and not only will you feel successful, you are on the road to success.

Be Professional

There are many definitions on what a professional is and perhaps personal opinions dictate definitions. There are certainly some things that are expected of you as a teacher and it is up to you to uphold this image. There are some people who do not wish to maintain professional standards but this article will not change their opinions. Some professionals gossip about school policies and the administration. Some aren't too concerned about their private life and personal appearance. Make the teaching profession proud of you.

Become Part of the Community

Becoming part of the community includes church, professional organizations, school, and community affairs. In other words, become involved. We often complain that we are too busy, but a person who does these things unselfishly will know that he will not quit these responsibilities and stay home just to gaze at television. This is not to say that being part of the home and family isn't important. But everything must be in the proper perspective. Have you ever noticed that the person who does little always complains how busy he is? Become involved and the chances are you'll stop feeling sorry for yourself.

Importance of Tenure

If these points have been carefully considered, it is possible you have now acquired some tenure in your position. It is also possible that you have been rewarded with a favorable salary. Money is nice but if this is your basis of success, the chances are you will never feel successful.

Tenure is important for you and for your community. A teacher needs to be in a community at least five years and perhaps even longer to witness the results of his program. Ask any established teacher and he can tell you that even today he is learning something new about the community and the people living in it. Tenure in a community is especially important in the adult program. It may take two to five years to see some of your proposals accepted by the farmers. Can you wait a few years for these things to become accomplished? If you can, your tenure is being established and you'll observe that the group of teachers coming to conference this year certainly look younger. You have become a vocational agriculture teacher by choice not by chance.

Assistantships and Fellowships in Agricultural Education, 1969-70

GEORGE L. O'KELLEY, JR.
Teacher Education
University of Georgia

The American Association of Teacher Educators in Agriculture has in recent years released an annual listing of assistantships and fellowships available to agricultural educators in institutions offering graduate degree programs in agricultural education. This has been done in an attempt to assist interested persons in locating financial assistance which will make it possible for them to pursue graduate study and also to aid institutions in contacting strong, prospective students. Most agricultural educators who seek advanced degrees are mature individuals with family responsibilities necessitating income during graduate study.

Results of the survey conducted by the Publication Committee of the Association indicate the availability of more opportunities in 1969-70 than were reported in any past survey. No less than 229 assistantships, fellowships, or instructorships were reported by the thirty-six institutions responding. Additional opportunities are probably available as all institutions did not respond to the request for information.

Members of the Publication Committee are gratified with the obviously improved climate regarding the availability of financial support for advanced graduate study in agricultural education. It is hoped the information reported will be of assistance in encouraging more of those aspiring to leadership positions in the field to prepare themselves professionally to compete with top leadership in allied fields. Interested persons should note that the personnel contacted in this survey were requested to provide information about assistance available to agricultural education students only. Most of these same institutions, as well as others, offer assistance to graduate students in general without reference to a specific field of study. Persons interested in any of the opportunities listed are encouraged to contact appropriate officials in specific institutions.

Key to Listing

To the extent practicable, data are recorded in the following order: Nature of assistantship (number available); number of months available during year; beginning month of employment; amount of work expected; monthly renumeration and other considerations such as remission of fees; whether aid is for master's, advanced graduate program, or doctoral students; source of funds; and the 1968 deadline for application. In some instances the nature of the responses made it necessary to vary slightly from the above pattern in making the compilation.

George L. O'Kelley, Jr.

This list of assistantships and fellowships in agricultural education is prepared annually by the Publication Committee of the American Association of Teacher Educators in Agriculture. Dr. O'Kelley is Chairman of the Division of Vocational Education, University of Georgia.

University of Arizona

Research assistantships (2); 12 mo.; June or September; ½ time; master's; $290; out of state tuition waived; apply by March 1.

University of Arkansas

Research assistantship (7); 9 mo., 12 mo.; June or September; ½ or ¼ time; master's or doctoral; $125-250; tuition remitted; apply by March 1.

Auburn University

Teaching assistantship (2); 12 mo.; open any quarter; ¼ time; master's or doctoral; University; apply 6 weeks before quarter begins.

Clemson University

Research assistantship (2-3); 12 mo.; June or September; ½ time; master's; $250; Reduced tuition, fees remitted; Apply by May 15.

University of Connecticut

Research assistantship (2); 9 or 12 mo.; September; ½ time; master's or doctoral; $306.67 BS, $333.33 Master's, $400 for those who passed the Ph.D. General exam. Apply by May 1.

Cornell University

Teaching assistantship (3-4); 12 mo.; September or June; ½ time; master's or doctoral; $230-300; reduced tuition; State, University; Apply by March 15.

Research assistantship (4); 12 mo.; June or September; ½ time; master's or doctoral; $230-300; reduced tuition; State, Federal and University; apply by March 15.

East Texas State University

Research assistantship (2); September; ¼ time; master's; $225; University; Apply by April 1.

Teaching assistantship (1); 12 mo.; September; ¼ time; master's; $300; University; Apply by April 1.

University of Georgia

Research assistantship (4); 12 mo.; September; ½ time; doctoral; $400; Apply by February 15.

Fellowship (1); 12 mo.; September; none; doctoral; $216; tuition waived; allotment for each dependent; Apply by February 15.

University of Illinois

Research assistantship (6); 9 or 12 mo.; June, September or February; ½ time; master's, doctoral or 6th year; tuition and fees remitted; $300-333.33; Apply any time.

Research assistantship (4); 9 or 12 mo.; June, September or February; ¼ time; master's, doctoral, or 6th year; $141.67-166.67; tuition and fees remitted; Apply any time.

Teaching assistantship (2); 9 or 12 mo.; June, September or February; ½ time; doctoral or 6th year cert.; $300-333.33; tuition and fees remitted; Apply any time.

Teaching assistantship (2); 9 or 12 mo.; September or February; ¼ time; master's, doctoral or 6th year cert.; $141 to 166; tuition and fees remitted; Apply any time.

Iowa State University

Research assistantship (2); 9 mo.; September; ½ time; master's or doctoral; $278; reduced tuition; Iowa Agriculture and Home Economics Experiment Station; Apply by April 1.

Prospective Teacher fellowship (3); 9 or 10½ mo.; September; No work req.; master's; $222; tuition remitted, $400 per dependent; USOE; apply by April 1.

Education Research Training Fellowship (3); 12 mo.; September; No work req.; doctoral; $208; tuition remitted; $500 per dependent; USOE; apply by April 1.

Kansas State University

Teaching assistantship (1); 9 mo.; June or September; ½ time; master's or doctoral; $300; Reduced tuition; apply by March 1.

Research assistantship (1); 9 mo.; June or September; ½ time; master's or doctoral; $300; reduced tuition; apply by March 1.

University of Maryland

Research assistantship (3); 12 mo.; September; ½ time; master's or doctoral; $270; tuition remitted; apply by April 1.

National FFA Fellowships (3); 12 mo.; June; None; master's or Adv. Grad. Spec. Program; $333; Massey-Ferguson, Inc.; Apply by May 1.

Instructorship (1); 10 mo.; September; full time; master's or doctoral; $600; tuition remitted; Apply by April 1.

Michigan State University

Teaching assistantship (5); 9 mo.; September; ½ time; doctoral; $300-425; out-of-state tuition waived; University; Apply by March 1.

Research assistantship (3); 9 mo.; Sept. ½ time; doctoral; $300-425; out-of-state tuition waived; Grant; Apply by March 1.

University of Minnesota

Teaching assistantships (2); 12 mo.; September or July; ½ time; master's or doctoral; open; reduced tuition; apply by March 1.

University of Missouri

Graduate research assistantship (2); 12 mo.; June or September; ½ time; master's or doctoral; $300; out-of-state tuition waived; State Dept. Educ.; March for Summer Session, Sept. for Fall Semester.

Montana State University

Assistantship (1); 9 mo.; 15 hours per week; master's; $330; Open.

University of Nebraska

Research assistantship (3); Teaching assistantship (1); 12 mo.; July 1; ½ time; master's or doctoral; $300; University, grant; Apply by May 15.

University of New Hampshire

Research assistantship; 10 or 12 mo.; ½ time; master's; $240; tuition remitted; Grant; Apply by April 1.

New Mexico State University

Teaching and research responsibilities (2); 9 mo.; September; ½ time; master's; $216; Apply by April 1.

North Carolina A & T State University

Teaching and research assistantships (5); 9 mo.; 12 mo., 6 weeks; June or September; ½ time; master's; $180.

North Carolina State University

Assistantships; 9 or 12 mo.; June or September; ½ time; master's or doctoral; $250 master's, $366 doctorate; Apply by April 1.

Graduate assistantship (5); Post doctoral research associate (1); 12 mo.; February; ½ time; doctoral; $367; reduced tuition; USOE; immediately.

The Ohio State University

Assistantship (6-8); 9 or 12 mo.; June or September; 15 hours per week; $300; tuition remitted; March 1.

The Pennsylvania State University

Research assistantship (16); ½ time; master's or doctoral; $262 or 284; tuition and fees remitted; Apply April 1 or six months prior to enrollment.

Purdue University

Teaching assistantship (2); 12 mo.; September; ½ time; doctoral; $366.67; Reduced tuition and fees; Apply by March 1.

Graduate assistant (1); 10 mo.; Sept.; ½ time; master's or doctoral; $280; Reduced tuition and fees; Apply by March 1.

Rutgers — State University

Research assistantship (8); 10 or 12 mo.; September or July; ½ time or 15 hrs/wk.; $252.66; tuition remitted; Apply by March 1.

Fellowships (3); 10 mo.; September; None; master's or doctoral; $166-200, $400 per dependent; NDEA; Apply by March 1.

Sam Houston State College

Graduate Teaching Fellowships (3); 9 mo.; September; ¼ time; master's; $300; Apply by April 1.

Junior College Internships (2); 9 mo.; September; ¼ time; post-master's; $350; Apply by April 1.

Laboratory assistantships (12); 9 mo.; September; 4/lab.; $43/2 hr. lab.; Apply by September 1.

Southern Illinois University

Research assistantship (1); 12 mo.; June or September; ½ time; master's; $250; tuition remitted; Apply by April 15.

Texas A & M University

Research assistantships (2), Teaching assistantships (4), Fellowships (2); 9 mo.; September; ½ time; master's or doctoral; $275 master's, 1st yr. Ph.D. $300; 2nd yr. Ph.D. $325; 3rd yr. Ph.D. $350; Apply by April 1.

Tuskegee Institute

Assistantships (6); 2-9 mo.; 2-10 mo.; 2-12 mo.; September; ¼ time or 15 hrs/wk.; master's; $200-250; tuition remitted; Apply by April 15.

Utah State University

Teaching assistantship (1); 9 mo.; September; ¼ time; master's; $200; University; Apply by June 1.

University of Vermont

Fellowship (1); 11 mo.; July or Sept.; ½ time; master's; tuition remitted; Apply by June 1.

Virginia Polytechnic Institute

Teaching assistantship (2); 9 mo.; September; ½ time; master's; $320; out-of-state tuition waived; Apply by June 30.

Washington State University

Fellowships (2); 9 mo.; September; None; $300; State Coordinating Council for Occupational Education; Apply by April 1.

Fellowships summer (8 weeks); No obligation to work; $300; State Coordinating Council for Occupational Education; Apply by April 1.

Wisconsin State University, Platteville

Assistantship (4); 9 mo.; September; ½ time; master's; $265; Apply by April 1.

Wisconsin State University, River Falls

Graduate assistantships (8); 9 mo.; September, December 1, March 1; 12-15 hours/week; master's; $280; out-of-state tuition remitted; University funds; Apply by March 1.

University of Wisconsin

Assistantship (1); 12 mo.; July; ½ time; master's or doctoral; $275; out-of-state tuition remitted; University Research funds; Apply by April 1.

Who Holds the Key to Success in Recruiting Teachers?

FREDERICK G. FAULKS
Vocational Agriculture Teacher
Parma, Idaho

Recruitment of teachers for vocational agriculture is a subject of much concern. The severe shortage of teachers has come about chiefly from the expansion in agricultural education. However, an increasing number of agricultural education majors find that the training they received enables them to secure excellent positions outside the field of teaching vocational agriculture.

A recent study indicates a number of factors influencing students to enter the agricultural education curriculum in college. The study involved responses and opinions of agricultural education majors at the University of Idaho and seventy-four vocational agriculture teachers in Idaho.

Decisions About Teaching

Approximately one-third of the agricultural education majors and the teachers indicated that they decided to major in agricultural education in high school. Another one-third of the agricultural education majors had chosen the curriculum by the time they were college freshmen. One-half of the teachers reported that they elected the agricultural education curriculum after becoming juniors in college. Although one-half of the majors and teachers indicated teaching to be their primary career objective, many considered farming their first choice with teaching an alternative.

Teachers Are Best Recruiters

The person considered the most influential recruiter was the vocational agriculture teacher. This fact places the responsibility of recruitment largely in the hands of the high school teacher. The study also revealed that a teacher's ability to recruit varied directly with his image in the local community. Some of the personal characteristics rated necessary for a favorable image as a teacher were: ability to maintain discipline, cooperation with school administrators, cooperation with high school staff, enthusiasm for teaching, and personal appearance and neatness.

Some factors influence young men to decide against teaching vocational agriculture. An important factor is the appeal of other agricultural occupations. However when a potential teacher turns away from the teaching profession, it is often because the most influential person for recruitment, the high school teacher, has not presented a desirable image. For example, more than one teacher has tried to impress his students and community with the overload of work he must do or the low pay he receives for the amount of time required. Perhaps that teacher feels he is building his own security by limiting the number of new teachers. But this is short-sighted. Already the lack of sufficiently qualified teachers has forced some programs to be cut back and teachers without agricultural education backgrounds have been hired to fill other positions.

Other Factors

The study revealed some other factors were important in recruiting prospective teachers. Among these factors an appreciation for high school vocational agriculture ranked first followed by an appreciation for the FFA program. In addition, work with rural youth and the varity of job opportunities open to vocational agriculture teachers were considered influential. Another prominent factor was the general attitude toward the future of agriculture.

It can be concluded that favorable images of the teacher, vocational agriculture and FFA, and the future of agriculture are essential when recruiting prospective teachers.

Frederick G. Faulks

This article is based on Mr. Faulk's M.S. thesis, "A Study of the Factors Influencing Recruitment of Students in Agricultural Education Curriculum in Idaho," completed at the University of Idaho in 1967.

Recruitment Activities

The study identified some recruitment activities considered valuable. Three-fourths of the agricultural education majors replied that a personal talk with the vocational agriculture teacher was important. One-half of the teachers were of the same opinion. Almost one-half of those reporting considered literature on opportunities in the profession important. Other activities considered helpful recruitment practices were attending the state FFA convention, influence of state supervisors and teacher educators, and tours of the agricultural college and the agricultural education department.

Although recruitment activities are very important, the vocational agriculture teacher must remember that he holds the key to the future of agriculture education. As the mirror on the wall reflects his image, likewise the students he works with will reflect his attitudes. Teachers can be effective recruiters with activities such as preparing and presenting a unit on career opportunities in agricultural occupations, providing specific information on opportunities in agricultural education and vocational agriculture, using leaflets and brochures provided by state and national recruitment committtees, and providing the high school counselor with accurate information on the agricultural education curriculum.

Work-Experience Workshop for Teachers

RICHARD F. STINSON and NEIL V. CROSS
Teacher Education
The Pennsylvania State University

Teachers from four northeastern states participated in a one-week Work-Experience Workshop in Ornamental Horticulture in Philadelphia during June 1968. The purpose of the workshop was to provide each teacher with several days of first-hand work experience in a flower shop, a landscape-nursery, a greenhouse, or a golf course. One teacher worked with a city forester.

Participating teachers had had several years experience teaching agriculture. Most had taught ornamental horticulture. Eleven teachers were from Pennsylvania with one each from Maryland, New Jersey, and West Virginia. Teachers paid the costs of housing, meals, and transportation. They were housed in dormitories at Temple University and Haverford College.

Businesses

The twelve businesses selected for the workshop were chosen on the basis of recommendations by Extension Specialists in horticulture and agronomy at The Pennsylvania State University. Managers of the businesses were contacted several months prior to the time of the workshop. They were informed of the purpose of the workshop and were given detailed lists of the kinds of experiences it was hoped the teachers could have. All managers who participated expressed great interest in the workshop and its objective. Two landscape-nurseries, three flower shops, two golf courses, four greenhouses, and one city forester took part in the program. All were within a fifty-mile radius of Philadelphia. Consultation fees for the business firms were covered under a grant from the U. S. Office of Education.

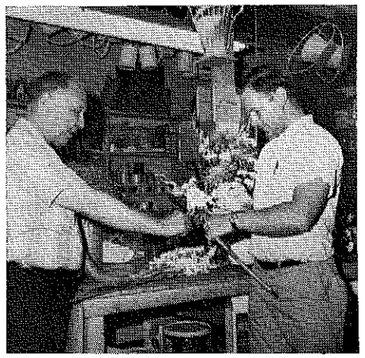
Program

The program consisted of registration and briefing on Sunday afternoon followed by three days of on-the-job experience and two days of seminars. During the three days of work-experience, the teachers reported to the businesses on a routine work-day schedule. They worked with regular employees but were shifted from one kind of task to another to gain as many different kinds of experience as possible within the normal operation of the business. Managers were asked to set aside several hours in which to discuss business management aspects with the teachers. They discussed such things as employee relations, policy, stock control, wages, pricing, marketing, selling, and physical plant maintenance.

Seminars on the fourth day involved compilation of reports by the five interest groups and presentation of the reports to all groups. The group reports were followed by a presentation on planning work experiences for students. The presentation covered the administration and legal aspects of implementing work experience for students as well as the evaluation of this form of instruction.

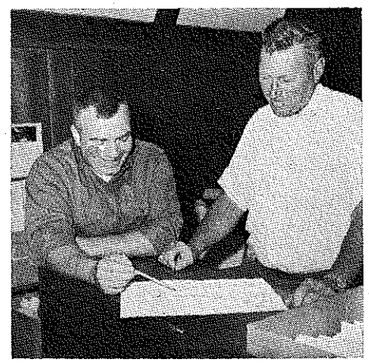
Seminars on the fifth day started with the development by interest groups of outlines of programs for student work experience using school facilities and businesses. Reports were given in the afternoon. The last event was a critique of the workshop by the participants.

A workshop similar to that described in this article is planned for July, 1969. The program will be expanded to include work experience in turf farms, garden stores, and arboretums. Teachers from any state may enroll. For further information contact Dr. Richard F. Stinson, Agricultural Education Department, The Pennsylvania State University, University Park, Pennsylvania 16802.



(Above)
Edward E. Evaul (right), teacher at Northern Burlington County Regional High School, Columbus, New Jersey, receives instruction in floral design.

(Below)
Gerald W. Reichard (left), teacher at Greencastle-Antrim High School, Greencastle, Pennsylvania, discusses a landscape plan with a cooperating employer.



MICROTEACHING— *TO IMPROVE TEACHER EDUCATION*

DAVID G. CRAIG, Teacher Education
The University of Tennessee

David G. Craig

Microteaching is becoming popular in the jargon used by beginning teachers, supervisors, and teacher educators. The term originated at Stanford University approximately six years ago. Microteaching appears to have two major functions in education. First, as a scaled down teaching encounter, it provides supervisors and teacher educators a clearer view of the complex process of teaching. Second, it provides college students preparing to teach and experienced teachers an opportunity to learn about and improve their teaching behavior in small steps. This article will describe some basic aspects of microteaching as well as report some results when used with student teachers.

What Is Microteaching?

Compared to the conventional secondary classroom period and situation it has the following characteristics: it is *brief,* usually from three to twenty minutes; it is *small,* involving three to six pupils; there is *realism* in microteaching in that pupils and real lessons are used; it is *evaluated* by a master teacher and sometimes by the teacher who taught the lesson and the pupils as well; there is a *plan* involved, that is, the teacher makes and uses a lesson plan along with appropriate instructional materials.

What Procedures Are Used?

Although microteaching may be conducted in several ways, the following procedure has been used satisfactorily at The University of Tennessee with student teachers of vocational agriculture. This procedure involves two phases during a two-day period. The procedure is repeated weekly or twice weekly as staff, equipment, student teacher and pupil, and transportation schedules can be arranged.

Phase I occurs on campus and includes an introduction, description and discussion of the teaching skill to be learned (e.g., how to use reinforcement in teaching). Criterion performance of the skill is emphasized. The skill is then demonstrated by the teacher educator or supervisor. If video tape is used the demonstrated skill or a pretaped model of the skill can be replayed for analysis and discussion. As this phase ends, student teachers are asked to plan for teaching using a mini-lesson plan and to emphasize use of the demonstrated skill.

Phase II involves transporting student teachers and video tape equipment to a secondary school for actual microteaching. Assuming administrative arrangements have been made, the following steps are followed: selecting four appropriate vocational agriculture pupils, making physical arrangements for teaching the lesson, each student teaching for five minutes, evaluating the lesson with each student, each student reteaching the same lesson with improvements to four different pupils, and evaluating the second performance. It is believed that those procedures are applicable to inservice training of experienced teachers with certain modifications.

What Are The Advantages?

Microteaching has a number of advantages which continue to be supported by practice and research. First, microteaching simplifies the complex teaching process. As student teachers face their first classes of from ten to thirty pupils for a fifty-five minute period the situation is almost overwhelming. With the advent of microteaching specific teaching skills have been identified. These include pre-instructional set, asking questions, varying the stimulus situation, closure, and others. Student teachers can learn about and practice these skills in small steps and grow into teaching from simple to more complex situations. This simplified teaching technique further enhances more precise research and experimentation.

A second advantage of microteaching is that it permits greater control over practice. Teacher educators and supervisors can observe more students teach over a shorter period of time. More specific aspects of teaching and learning can be pinpointed and improved. Student teachers can gain experience with a greater variety of subject matter and with different types of students. Furthermore, the kind and amount of practice can be altered to meet student teacher needs.

Efficiency is a third advantage. Staff time, facilities, number of pupils needed and student teacher practice time can be reduced once the microteaching routine is established.

A fourth advantage is the opportunity for more accurate and meaningful evaluation of teaching. Observation and evaluation can focus on the smaller aspects of teaching. The use of video tape has the advantage of observing instant replay of action and sound as well as noting specific teacher and pupil behavior.

How Do Student Teachers React?

The microteaching procedures described earlier have been used with three groups of student teachers during the past year. The objective with each group was to have student teach-

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PREPARING TEACHERS TO TEACH AGRICULTURAL MECHANICS

CURTIS R. WESTON, Teacher Education
University of Missouri

Curtis R. Weston

This article is from a paper presented to the 1968 Central States Seminar in Agricultural Education held in Chicago. Dr. Weston is Associate Professor of Agricultural Education and Agricultural Engineering at the University of Missouri, Columbia.

Vocational education has evolved into a complex system for educating and re-educating the nation's work force. Instruction in agricultural mechanics is a part of this complex system. So an appropriate question is: what are the instructional needs in agricultural mechanics?

Background

A brief review of some of the historical background involving agricultural education, agricultural mechanics, and agricultural engineering is in order. Traditionally, teachers of vocational agriculture receive mechanics training at the undergraduate level in agricultural engineering departments in colleges and universities. Evidence of some possible problems with this arrangement is recorded in a report of a subcommittee on Agricultural Teacher Training presented to the American Society of Agricultural Engineers in 1944. The American Society of Agricultural Engineers has long had an interest in the problem of preparing teachers of agriculture. The work of the Society's subcommittee and the resulting report had much to do in establishing a pattern of training in "agricultural engineering."

Note that I use the words "training in agricultural engineering" which were used by the subcommittee in 1944. In 1953 the subcommittee used the words "farm mechanics" instead of agricultural engineering. In the report of 1960 they used the words "agricultural engineering technology." Now I refer to this area of training as "agricultural mechanics." This joint committee between agricultural education and agricultural engineering is still very active and will continue to exert a desirable influence upon the type of training students receive.

In Missouri we have a course of study in agricultural mechanics which suggests that almost one-half of the teacher's time be spent teaching agricultural mechanics. A recent study in Missouri indicated that teachers are even spending more time than is recommended. I assume then that at the secondary level most teachers spend between 30 to 60 per cent of their time teaching agricultural mechanics plus the teaching of some agricultural mechanics in adult education.

Are We Realistic?

Either we have been very unrealistic in training teachers or in the amount of time suggested for teaching agricultural mechanics. I assume that fifteen semester hours of credit in agricultural engineering is more or less typical of most graduates in agricultural education. How educated persons can continue to think that teachers are qualified in agricultural mechanics with this type of undergraduate training is incomprehensible to me.

There are several things which disturb me as I think about where we have been and where we are going in agricultural mechanics. A few of these concerns are as follows.

—The decreased emphasis on agricultural mechanics at all levels, except by the teacher at the local level. For example, since the passage of the 1963 Act there have been national seminars, workshops, meetings, and conferences on about any subject you choose. But to my knowledge not a single conference has been held on agricultural mechanics.

—The continual trend of devoting less and less time in our agricultural engineering departments to the so-called practical approaches to teaching. This lack of adequate training of teachers must surely some day catch up and destroy our image.

—The trend of all other agricultural agencies at the local level to avoid all training in agricultural mechanics. Vocational agriculture is the only agency with the facilities and training that can even attempt to give training in mechanics.

—The practice of teachers avoiding the teaching of such subjects as power and machinery, buildings, and electrification. This is a direct result of their training, of course.

—The debate by staffs in agricultural engineering departments as to whether they should even train students in the area of mechanics. Many believe this type of training is below standard. Many departments prefer the purist role although without the agricultural mechanization student, the department would be a much smaller department.

—Reduced time available for teaching mechanics.

Some Recommendations

I propose the following recommendations regarding instructional needs in agricultural mechanics.

—That course offerings in agricultural engineering departments be examined to make certain they are up-to-

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Trends in Teacher Certification

JOHN D. TODD, Teacher Education
The University of Tennessee

John D. Todd

Programs in agricultural education have probably changed more during the last five years than during most of the years between 1917 and 1963. This would suggest that rules and regulations which govern teacher certification should also change to keep abreast with changing problems.

How much change should be made in teacher certification to prepare the kind of teacher who should be in demand today? What impact should specialization in agricultural education have upon certification rules and regulations? How far should we go in adopting emergency measures to meet the shortage of teachers and still maintain quality programs? These are important questions and each points out a need for some change in teacher certification.

Need For A Change

The Vocational Education Act of 1963 made it possible for many changes in traditional agricultural education programs. This opened opportunities in many fields of agriculture in which teachers had not been properly prepared. Post-high school programs became a reality and specialization replaced generalized programs in vocational agriculture. At the same time, an unprecedented teacher shortage occurred which presented additional problems in agricultural education.

To implement new legislation there should be some changes in agricultural education programs. It is now possible to train for any job requiring knowledge and skill in agriculture. Even though there is still a place for traditional programs in agricultural education, these programs will not meet the needs of all the persons who are now eligible for training.

Any changes in certification rules and regulations should be to facilitate fulfillment of the objectives of newer legislation. In most situations, changing or modifying certification rules to meet the emergency teacher shortage can be defended, but only on a temporary basis. This practice should not be permanent nor should it set a precedent for the future.

Responsibility For Certification

Education is a state function, therefore, it is logical that the state be responsible for establishing and enforcing rules and regulations to control certification of teachers. The state should protect the public by licensing or certifying only persons trained and prepared to carry out educational activities. With any trend toward improving teacher certification in vocational agriculture the role of the state should always be considered, even though it may be the responsibility of the teacher education institutions to assume the initiative for suggesting and implementing improvements.

The potential set forth in new legislation should be realized at all levels. This may require that new programs be planned and instituted, thus creating a demand for teachers with different training and competence. The preparation of these teachers will demand cooperation between local units, state departments of education, and teacher education institutions. As an example, it would be futile to prepare teachers for ornamental horticulture programs when such programs do not exist or will not likely become operational in the near future.

Trends

I recently completed a study in the Southern Region to determine present conditions and possible trends in teacher certification in agricultural education. All twelve states and one territory of the region were included in the study.

According to information received, certification rules and regulations have been changed in eight states within the last five years. However, rules and regulations in three states have not been changed in more than ten years. All of the changes that have taken place in certification rules were not specified, but in some cases respondents indicated that changes were rather insignificant. Very little progress was reported toward endorsements in specialized areas of agriculture. However, there were plans in four states for such endorsements which will be consummated within two years.

Double majors were possible in many of the teacher education institutions. This is in essence an endorsed area although it is not listed on the teaching certificate.

Post-high school programs in agricultural education are conducted in a majority of the states. For conducting such programs conventional certification in agricultural education is required by most of the states. In one case no certification is required, but an advanced degree in the area of speciality is a requisite.

Since certification rules and regulations are used to help govern the preparation of teachers, it seems logical that such rules should change as the need for differences in training and competence exists. In the Southern Region it is evident that some changes are taking place in teacher certification, but there may be some doubt whether these changes are occurring as rapidly as they should.

Suggestions For Improving Teacher Certification

— State and local personnel should work to implement fully the new legislation. New programs should be planned and conducted, thus demanding teachers with differences in training and competence.

— Teacher education institutions should update curricula in order to meet the demands for a differently prepared teacher. These changes should be evident in both the traditional and the more specialized programs. These changes should also include methods of teaching, course organization, and content. It should be possible for students to specialize at the undergraduate as well as the graduate level.

— State Boards of Education should recognize the need for specialities in agricultural education and issue certificates with endorsements in these areas. These certificates should be issued for both the secondary and post-secondary levels. There should be more requirements in training and experience for certification for the post-secondary level.

— Any system of certification should require continuing education in the field of specialty. Agricultural teachers should earn additional credits in agriculture and related fields as a requirement for renewing a professional certificate.

— The teacher shortage in agriculture has produced a crisis in some areas. Steps should be taken to remove this problem rather than continuing the issuance of substandard certificates.

Conclusion

There may be some evidence to support the attitude that certification rules and regulations should not change too rapidly in order to guarantee standards, consistency, and quality to the teaching profession. There is also evidence to substantiate the attitude that changes in certification rules should take place as the need and demand develop for teachers with different competencies. Such changes could still incorporate the desired components of a rather static certification system. It appears there is a need for some change in certification in agricultural education.

Microteaching

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ers increase their performance level for specific teaching skills.

The interaction analysis technique was used to evaluate pre- and post-test five-minute lessons. This technique involves categorizing teacher and pupil interaction every three seconds during a lesson. Recorded behavior is then summarized for the purpose of analyzing teacher-student interaction patterns. The percentage of time of teacher and pupil talk is calculated also.

Shown below are the types of changes in teaching performance of two groups of agricultural education students whose preservice education included microteaching.

—more praise and encouragement was given to pupils

—more accepting statements were made of pupil responses

—more questions were asked by the teacher

—less time was spent lecturing

—more directions were given to pupils

—more responses were made by pupils

—more time was spent in silence and pupil study time

Although evaluation of teacher-student interaction is specific to teaching style and to lesson objectives and content, all of the changes are positive and in the direction of providing the desired conditions for pupils to learn.

Summary

As a new technique in teacher education, microteaching has potential to improve teacher effectiveness and to assist in searching for answers to basic teaching and learning questions. It is a technique that can be used with preservice and inservice teacher education. Of considerable value is its focus upon the more specific aspects of the teaching and learning processes. There are many questions yet to be answered. One question is: If teachers increase their effectiveness with microteaching experience, how well does this increased effectiveness transfer to on-the-job teaching in a conventional classroom situations

Agricultural Mechanics

(Continued from page 171)

date and that they effectively meet the needs of teachers and not be simplified or "watered down" courses in agricultural engineering.

—That staff members who teach agricultural mechanization courses be selected on the basis of their special abilities and not only upon academic attainments.

—That there be established an institute where persons can receive adequate training at the graduate level. There should be at least one institution in this country where a person can get a doctorate in agricultural mechanics, if this is an important subject matter area.

—That staff members in agricultural mechanics have equal status and opportunities for advancement as any other staff members.

—With the increased emphasis upon agricultural mechanization, there must be additional persons added to each department or state staff to serve as specialists in agricultural engineering, agricultural mechanization, or agricultural mechanics—take your choice of terms.

—That specially trained persons who have majored in agricultural mechanics be provided for the multi-teacher vocational agriculture department. At the University of Missouri a student who wanted to specialize in agricultural mechanization could only take twenty-four semester hours if he took every course offered for majors in agricultural mechanization.

—If the training in skills is below the educational level acceptable by universities, then it may be necessary for us to look to some other agency to give part of the training for teachers of vocational agriculture. Training in principles alone is not the answer to training in agricultural mechanics.

—There is need for persons at national and regional levels to coordinate training and other activities in agricultural mechanics.

—There is need for a coordinating center to distribute project plans that would be useable in all states.

—There is a need for instructional materials to be made available at all levels of training in agricultural mechanics.

BOOK REVIEWS

GERALD R. FULLER, Special Editor
University of Vermont

MARKETING AND DISTRIBUTION by Ralph E. Mason and Patricia Mink Rath. New York: McGraw-Hill, 1968. 566 pages. $6.48

One purpose of *Marketing and Distribution* is to provide the reader with a foundation of economics and marketing concepts. Following each of the forty-two learning units is a list of marketing terms, problems to be answered, and suggested projects. The three hundred and eight marketing or vocabulary terms, and the forty-seven problems, serve as a kind of review after reading the learning unit materials. The seventy-two projects provide meaningful experiences which help students apply those facts, concepts, and principles learned previously in the text of the book.

Markets, institutions and channels, research, products, distribution, promotion and selling, customer service, and careers are discussed in the book. One unit is devoted exclusively to the marketing of farm products. Farm marketing methods and services, pricing of farm products, and farm marketing trends are presented in a general way in the unit. The unit on farm marketing methods and services is somewhat independent of the other units. In fact each unit is self-contained and, in essence, and entity within itself.

The information about the marketing and distribution aspects of the business world is presented in an interesting style. The easy-to-read book is well illustrated with attractive pictures and other multicolored visuals. The text is packed full of factual information without being wordy.

While the book was designed to be the core of the subject matter for distributive education programs, it has considerable merit as a reference for agricultural education programs. For high school students in the major instructional areas of Agricultural Supplies and Agricultural Products (processing and marketing), *Marketing and Distribution* would serve well as one of the textbooks for the course. With the present emphasis on off-farm agricultural occupations and vocational guidance, the book would be a worthy addition to agricultural education libraries (secondary and post-secondary) as a reference book or supplementary resource.

Charles C. Drawbaugh
Rutgers—The State University

THE COMMUNITY JUNIOR COLLEGE by James W. Thornton, Jr. New York: John Wiley and Sons, 1966, Second Edition. 300 pp. $7.95.

This book introduces the prospective junior college teacher, the prospective administrator, and the lay citizen to the principles and practices of community junior college education in America. Dr. Thornton calls upon his experience in junior college education to provide the reader with a clear, concise discussion of the background of the community junior college movement, the patterns of organization within community junior colleges, and the types of instructional programs within community junior colleges. He concludes the book with a brief but challenging chapter entitled "The Future of the Community Junior College."

The author points out that the concept of both terminal and semiprofessional education in the junior college "gained widespread currency with the foundation of the American Association of Junior Colleges in 1920" and that by 1945 the concept had become an established part of junior college programs. Occupational education in the community junior college is discussed in the appropriate sections of the book and is placed in the context of the total community junior college. One chapter has been devoted specifically to the discussion of the occupational education curriculum.

One of the strengths of this book is the conciseness in which the material is presented. The author, in this relatively small book, not only introduces the reader to the American community junior college but also includes a description of the role of occupational education in the junior college program. This book could be a valuable addition to the professional library of any person interested in becoming acquainted with this American educational institution — the community junior college.

Gerald R. Fuller
University of Vermont

TRACTORS AND CRAWLERS: SECOND EDITION by Philip V. Eshelman. Chicago, Illinois: American Technical Society, 1967, 365 pp. $7.50

Tractors and Crawlers is a study of mobile power equipment used in agriculture and many other major industries. The book consists of eight chapters. Each chapter deals with a major section of the study of modern wheeled and crawler tractors. It is well illustrated with a considerable number of photographs and drawings.

The author has presented a comparative study of design features, type of power equipment, and components of tractors and crawlers. Operating principles are explained and illustrated. Terms pertinent to power mechanization are defined for lay comprehension. Worn, damaged, and broken parts and components are identified and discussed. The author stresses the needs of and procedures for maintenance, adjustment, inspection, repair and replacement of the various systems, components and parts of tractors and crawlers.

L-P gas, gasoline and diesel engines are discussed. The various types of engines and accessories are compared according to basic engine construction, operating principles, preventive maintenance and specific servicing procedures.

Tractors and Crawlers is recommended as a reference for advanced courses of power and tractor mechanics and for courses in which prospective salesmen and dealers are being prepared. This book appears to be less suited for introductory mechanic classes at the high school level.

Keith E. Fiscus
Washington State University

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News of NVATA

JAMES WALL
Executive Secretary

The NVATA column is being used this month to explain the various awards available to NVATA members. For further information write to the National Office, Box 4498, Lincoln, Nebraska 68504, or contact your state association president or secretary.

A. O. Smith Harvestore Products provides six travel scholarships each year—one for the outstanding teacher of each Region. The scholarship includes a ten-day flying tour of the United States and a trip to the NVATA Convention for the winners and their wives.

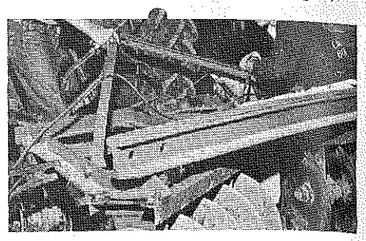
The New Holland Division of Sperry Rand sends the six teachers who have conducted the most outstanding "Agricultural Career Orientation Programs" to the NVATA Convention. One teacher is selected from each of the NVATA Regions.

United States Steel selects the most outstanding "Young Teachers," teachers with five or less years of experience, and sends them to the NVATA Convention. Winners were named in Regions I, II, and III in 1968. In 1969 the winners will be selected from the other three Regions. There is a possibility that all six Regions may be included in the 1969 contest.

The Charles Pfizer Company gives $500 cash awards to the advisors of the FFA Foundation Award Winners in Livestock, Dairy, and Poultry Farming. The awards are presented at the annual NVATA convention.

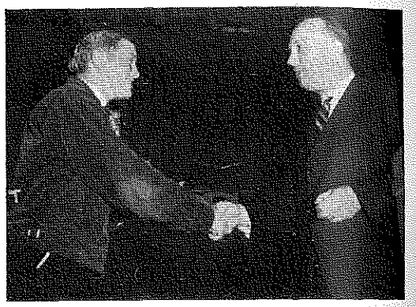
The NVATA provides a certificate to each State Association that qualifies for the Professional State Association Award. The award is based on the accomplishment of certain requirements. State Associations are provided with the necessary information and forms.

Workshops conducted by the Agricultural Education Division, University of Illinois, prepare agricultural occupations teachers to work with disadvantaged youth. Pictured are (left to right) Vicente Quiton, Jack Shetler, Sam Jones, and Robert Wheeler.

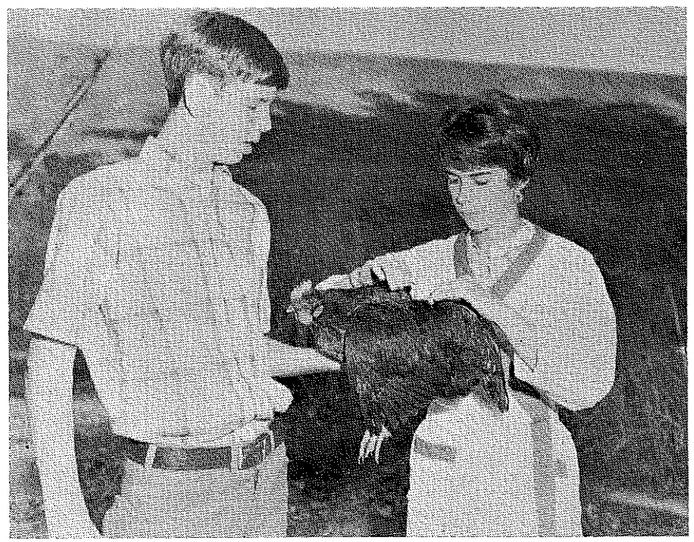


Boys studying vocational agriculture at Cal Farley's Boys Ranch, Texas, do all the maintenance and repair on farm machinery. (Photo by Guy W. Finstad)

Stories in Pictures



Darrell Cardwell (left), a senior high school student in vocational agriculture from Garnet, Kansas, receives a $500 Harry Darby Scholarship Award for prospective teachers of agriculture from Dr. R. J. Agan, Kansas State University. (Photo by R. J. Agan)



Mrs. Charlotte Glenn, the first woman teacher of agriculture in California, inspects the poultry project of Chris Everett, a vocational agriculture student at Yuba City, California. (Photo by E. M. Juergenson, University of California)

During the 1968 South Dakota Vocational Agriculture Instructors' Conference, Mr. H. E. Urton was honored for his service as State Supervisor of Vocational Agriculture. Mr. Urton retired October 31, 1968. Pictured are (left to right) Lorin Catchpole, President of the Vocational Agriculture Teachers Association, H. W. Gadda, South Dakota State University, H. E. Urton, and W. R. Bryant who was honored for 35 years of service as a vocational agriculture teacher.

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