

PONDERABLE PROBLEMS IN TEACHER EDUCATION IN AGRICULTURE

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There is a tide in the affairs of men
Which, taken at the flood, leads on to fortune;
Omitted, all the voyage of their life
Is bound in shallows and in miseries.
On such a full sea are we now afloat,
And we must take the current when it serves
or lose our ventures.

- Shakespeare, Julius Caesar

We in vocational education are on such a crest. It is a good time if we but know what to do with it. With the passage and funding of the National Vocational Education Act of 1963 vocational and technical education, including agriculture, has been given a renewed and broadened franchise to serve the occupational training needs of the nation. It appears that the act provides the impetus, flexibility, and a healthy portion of the funds needed to meet these critical needs if we but have the vision, foresight, and leadership to successfully exploit it.

I do not believe that we should substitute a national legislative act for a dynamic educational philosophy; nevertheless, it seems appropriate to review some of the act's major thrusts which may have significance for teacher education in agriculture.

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Perhaps the most sweeping implications of the act are in the declaration of purpose: "To maintain, extend, and improve existing programs of vocational education ... so that persons of all ages in all communities of the state ... will have ready access to vocational training or retraining which is of high quality, which is realistic in light of actual or anticipated opportunities for gainful employment, and which is suited to their needs, interests, and ability to benefit from such training." This means we have a responsibility to serve all age groups of varying levels of ability irrespective of their place of residence.

Major Items in the Act

Following are some of the more specific features of the act:

1. Quality vocational education in depth. Not pseudo, not quasi, but genuine occupational preparation is expected. The hallmark of vocational graduates of the future will be employability. Can they perform?
2. More emphasis on post-high school education and retraining. The act recognizes that no educational program is terminal, that constant training and retraining will become an essential part of our lives. The level of preparation required by most occupations is becoming higher. There has been an escalation of skills. Extra training time is needed to achieve occupational competence. Technical education programs will need to be expanded to meet the needs for "middle manpower."
3. Special classes for those who can not succeed in the regular vocational program. These special classes would serve needs that are not being met. Such classes would be more realistic for students and would protect our regular program from dilution. It appears there is a new status and sophistication for educators associated with these programs.
4. Access to vocational education regardless of place of residence. Unfortunately, we have had "de facto segregation" in vocational education. Enrollments were frequently determined on the basis of what was available, not what was appropriate. The act recognizes the need for introducing new structures and means of making broad vocational offerings available in all areas.
5. Training for known or anticipated employment. More emphasis is placed on correlating training and employment opportunities. Students will be expected to have definite occupational objectives. This increased concern further emphasizes the importance of the various agricultural occupations studies designed to determine occupational training needs in the broad field of agriculture.
6. Vocational agriculture broadened. Vocational agriculture has been broadened from training present and prospective farmers to any occupation involving knowledge and skills in agricultural subjects whether or not such occupation "involves work of the farm or of the farm home, and such education may be provided without directed or supervised practice on a farm." Note that it doesn't say without supervised practice. It says without supervised practice on a farm.

What is an agricultural occupation? Interpretations growing out of the act indicate that agricultural workers perform one of the agricultural functions of producing, processing, distributing, or servicing and that they need competency in one or more of the primary areas of plant science, soil science, animal science, agricultural business management, agricultural mechanics, or agricultural leadership.

7. Funds not earmarked by services. Agriculture has no guaranteed allotments under the new bill. Each State Board for Vocational Education must decide its priorities and allocations. The burden of proof--evidence of need for agricultural education--will rest with the profession. We will need facts concerning training needs in the total agricultural industry.

8. Cooperation not only implied, but practically mandated. The act implies more effective cooperation and coordination among the vocational services to adequately provide occupational training. Recognizing the complex interrelationship of problems associated with offering adequate occupational training, there is also implied the need for involving other agencies, organizations, and disciplines in their solution.

The act provides that states include in their plans arrangements for cooperating with public employment offices to provide occupational information "regarding reasonable prospects of employment in the community and elsewhere; and toward consideration of such information by such boards and agencies in providing vocational guidance and counseling to students and prospective students and in determining the occupations for which persons are to be trained."

Since the classification used by employment services does not provide employment needs in non-farm agricultural occupations as a specific category, we see additional evidence for the urgency of completing the agricultural occupations studies--for having information about occupational opportunities in agriculture in our states and communities.

9. Services to assure quality. The act recognizes that quality programs require such services and activities as teacher training, supervision, program evaluation, special demonstration and experimental programs, development of instructional materials, and state administration and leadership, including periodic evaluation of state and local programs and services. It specifies that at least three percent of each state's allotment shall be used for these purposes. This feature, plus the possibilities inherent in Section 4(c) (Research, Experimentation, and Training) should provide teacher educators and others with the needed resources to improve services to insure quality.

10. Evaluation made part of the act. There is provision for the appointment in 1966 of a National Advisory Council to review the vocational education program and laws. It is to submit its report to the Secretary of Health, Education, and Welfare not later than January 1, 1968. Reference is also made to periodic evaluation of state and local programs. Congress is dead serious about providing realistic, high quality vocational education for all.

11. Provision for research, experimentation, and training. The act provides for taking ten percent of the funds "off the top" to be used by the U.S. Commissioner of Education in making grants to pay part of the cost of research, experimentation, and training programs developed by institutions, boards, and agencies. This section of the act may be one of the most significant developments in vocational education. It should provide the means to develop an adequate program of research and development in vocational and technical education and to secure research with application of vocational education in supporting disciplines.

Through these and other major areas of emphasis the act has given increased prominence to vocational and technical education. Never before have agricultural educators faced a greater challenge and opportunity for creative leadership. We have been challenged to extend and update our program, to add breadth and depth while retaining and building on the proven features of our present program.

Diversity, Flexibility and Adaptability

There are many implications for vocational agriculture growing out of the new act, the changing school organizational structure, and the occupational needs of the agricultural labor force. There is implied a redefinition of roles and relationships. It would appear that diversity, flexibility, and adaptability will characterize vocational programs of the future. We seem to be moving toward diverse or multiple patterns of vocational and technical education in agriculture. No longer will vocational agriculture be a single general program that can be replicated in communities throughout the state and satisfy the needs of all. Specialized programs designed to meet precise labor market demands will be the dominant pattern. There is also implied closer cooperation and coordination with other agricultural agencies and other vocational services.

What does all of this mean for teacher education? Anticipating a broadened and an extended program, it would seem that we need many more and different kinds of teachers.

Questions and Issues in Teacher Education

The following appear to be some of the major questions, issues, or alternatives which the profession must resolve in the immediate future. While some of these relate primarily to teacher education, I am sure that we would welcome, and the situation requires the contributions and best thinking of the entire profession and supporting areas.

In preparing vocational educators in agriculture for the future--

1. Should we first train a generalist in agriculture and later provide him specialized technical preparation through in-service and graduate education? How long should the basic general preparation period be? Can it be done adequately in four years? How broad should the preparation of the generalist be? Recognizing the complex nature of emerging occupational needs, what should be his preparation in such supporting areas as sociology, psychology, and economics? Considering merging occupational categories, what preparation should he have for working with other vocational services and other areas of the public schools? For small schools in rural areas, can teachers or coordinators be prepared to provide leadership for more than one vocational area? Who has this responsibility? How should it be done?

2. Should we train agricultural specialists for specific anticipated vocational agriculture and technical programs? How do we predict the need for these specialized teachers sufficiently in advance? How do we balance the numbers being trained with these specialized placement opportunities in his specific teaching area?
3. Should we recruit agricultural graduates and non-graduates from agricultural industry and provide them with some specialized pre-service and in-service professional training? If so, how much pre-service training is needed to enable them to successfully begin conducting a vocational program? How should continuing in-service education be offered? How should these professional courses differ from our present offerings? How do we attract competent personnel from industry and retain them in vocational and technical teaching?
4. Should we give attention to opportunities for professional specialization by age groups or other special needs groups (e.g., youth, adults, technician level, disadvantaged) in addition to the possibilities for specialization within subject matter areas? If so, should specialization in professional preparation follow a general professional background? Should it be graduate or undergraduate?
5. Should we give increased attention to the possibilities of prospective teachers securing realistic occupational experiences in farming and/or agricultural occupations during the summers of their pre-service preparation period?
6. How can we vitalize our in-service and graduate offerings to better assist teachers in making needed program adjustments and to contribute to their sustained professional growth?
7. How do we develop a continuing and effective means of determining needs for vocational and technical training in farming and other agricultural occupations?
8. How do we develop more adequate continuing and comprehensive means of evaluating instructional programs and our organizational and administrative procedures?
9. How can we organize and conduct an effective program of research and program development? How can we provide for needed experimentation and pilot programs to assure a growing edge of knowledge and practice in vocational education in agriculture? How can we build into our operation the means of making our programs self-renewing?
10. How much time do we have to develop more effective procedures for coping with these problems and issues?
11. ? ?

Since the foregoing are listed as questions, it might be inferred that there are "answers." This is probably not the case, particularly if we expect an answer for all states and situations. I would hope, however, that these questions will stimulate thinking, that they will call attention to the urgent need for discussion and critical thinking by the profession and supporting disciplines. There appears to be an urgent need for a national seminar on the problems associated with improving and extending teacher education in agriculture. Such a seminar could draw on the experienced, dedicated leadership in our field and exploit recent research and developments in supporting areas.