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ARTICULATION OF EDUCATIONAL PROGRAMS IN AGRICULTURE--A PERSPECTIVE

by

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I have been assigned the job of trying to put into focus our concerns regarding articulation of educational programs in agriculture. Perhaps the word perspective, defined as "to look through, see clearly," if it can be done, is the challenge before us.

Let's take a quick historical look into the past as a basis for seeing where we are now and where we may be going in the future. Agricultural education at the post-high school level has been with us for a long time. Sometimes this instruction was given at a 4-year institution and labeled a "short course" or terminal program. In some states, specialized institutions were set up to do the job. In my own State, New York, and it is just an example, the Canton Agricultural and Technical College was founded in 1906 to provide instruction for young adults. These programs have grown over the years with over 250 institutions offering agriculture at the Junior College level in 1967 (Becker and Noland, The Agricultural Education Magazine, Vol. 40, No. 8, p. 188). Snepp, in a doctoral study at Ohio State University in 1963, found that programs in community colleges consisted of four major types: pre-professional or transfer, technical, vocational, and adult, with the major proportion of students in either the transfer or technical areas.

Sidney, writing in Vol. 40 of The Agricultural Education Magazine, gives a comprehensive overview of technical education in agriculture and relates it to the high school and four-year college level. He particularly calls attention to the gap existing in some states and in the need for training, at the technical or mid-management level. Dalbey, of Iowa, in an editorial in the same issue says, "Post-secondary education in agriculture is here and with it has come new challenges and decisions." He particularly stresses that probably only 15% - 20% of our high school graduates complete a 4-year curriculum. The need for technical training, in all fields, is therefore acute. Finally, Brookings and Hunsicker in 1966 succinctly outlined the need for technicians in agriculture and documented successful programs that were in operation. (The Agricultural Education Magazine, Vol. 38, No. 12, June 1966).

Let me suggest a framework for looking at education in agriculture. This may or may not agree with the structure in your State. I won't argue the merits or demerits of it, simply say that it is a pattern that you may find useful. Let's call the continuum, Occupational Education in Agriculture, and sub-divide it into the major areas. They would be vocational, technical, and professional.

Diagramatically, it would look something like this:

Occupational Education in Agriculture
Vocational - Technical - Professional
High School - Junior College - Four-Year College

I like to think of the professional workers at all levels in this continuum as the "team" in agricultural education.

A further look would show that vocational courses are offered at the high school level but may also be a part of a Junior College or post-high school program. If offered in the latter institution, such programs generally do not lead to the Associate Degree. Technical education in

agriculture is generally assumed to start at the post-high school level and almost always leads to an Associate Degree. Professional education in agriculture generally suggests a 4-year program leading to a B. S. Degree, although a portion (up to two years) of such education may well be gained in a Junior College situation. As you can see, there are no clear cut lines, at least in my opinion, where vocational ends and technical begins or where technical ends and professional emerges. In fact, one of our strong commitments in New York State is that no education should be considered terminal. Who can predict what a beginning level student may be able to absorb in a formal educational situation.

Perhaps we should define the term articulation before going any further. One of the best definitions and descriptions of the process is by C. W. Seay.* I quote it here for our guidance.

> "Articulation in Education is coordination of effort in those areas in the field where there are joint concerns and responsibilities between more or less independent units.
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> Good articulation insures smooth transition, continuity of the educative process, efficient development of pupils and maximum use of resources. It minimizes conflict and time consuming readjustments which frequently result in confusion and sometimes in frustration. It reduces failures and eventual dropouts. It is involved with physical, intellectual and emotional readiness for the next step. Good articulation is a requirement in administration, curriculum, guidance, instruction and use of facilities. Its basic tool is communication, two-way communication. The principal function of this communication is to facilitate orderly progression. The idea is to foster the kind of relationships between various levels of education in which understandings, appreciations and cooperation are mutually sought and mutually protected."

This then suggests that the articulation of programs at various levels is a major concern of all educators in agriculture. Along with Dr. William Hamilton, now on the Purdue Staff, I recently had the opportunity to look at the articulation process as it concerned high school and post-high school programs in agriculture in New York State.* We came up with the following guidelines for strengthening articulation between high school and technical college curriculums in agriculture:

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*C. W. Seay. "High School - College Articulation," Bulletin of the National Association of Secondary School Principals. 48, No. 293, Sept. 1964, pp. 57-61.

*Bail, J. P. and William Hamilton. A Study of the Innovative Aspects of Emerging Off-Farm Agricultural Programs at the Secondary Level and the Articulation of Such Programs with Technical College Curricula in Agriculture. Cornell Univeristy. 46 p. January 1967. U. S. O. E. Project No. 1988-13.

1. A Knowledge of Program Offerings is Essential

Instructors at each level should be fully aware of the offerings in agriculture. Specialists in the instructional areas at the technical college should have copies of courses of study used at the high school level. The high school instructors should have catalogues of the technical colleges plus brief one-page summaries of objectives, course content, and related information of the major offerings.

2. Program Titles Should Reflect the Actual Content and Intent of the Training

The more specific the programs are labeled, the less misunderstanding will result. Most subject matter areas may have several major subdivisions. Unless a program is clearly designed to be general in content, it should give the specialized area within the major subject matter discipline which will be stressed. An example, over-simplified, would be Ornamental Horticulture, which is too general whereas turf management, greenhouse management, or floriculture are more specific.

3. Programs Should Have Clearly Defined Job Titles or Families of Jobs which Graduates May Expect to Enter

The specific job titles or job families which graduates may enter should be listed. Students should be clearly aware of the jobs for which they are equipped by their training, whether upon graduation from high school or from technical college.

4. Qualifications for Entry into the Educational Program Should be Spelled Out in Detail

The required previous education or courses, experience or background, as well as academic ability level needed (judged by standardized tests) at both levels of program, must be given. These statements should be listed as minimum requirements, recognizing that selection will be made in cases where more students apply than can be accommodated.

5. A Checklist of Skills and Abilities Needed by Beginning Workers in the Specific Job Titles Should be Available

Adequate and thorough planning of courses necessitates knowledge of what workers do on the job. Research already completed, including follow-up studies of recent graduates, should enable course planners to provide meaningful educational experience in the classroom and laboratory.

6. Curriculums and Course Offerings Must be Continually Evaluated and Updated

New demands upon workers and increases in scientific and technical knowledge require the instructor to keep abreast of changes in his

specific courses or program fields. Summer placement of graduates, along with supervised experience, will help. Also, summer employment of an instructor in actual work situations will add a great deal to his ability to teach effectively.

7. Opportunity for Work Experience in Connection with the Program is Desirable

At the high school level, appropriate work experience is generally a required part of the program. In some technical colleges, summer experience or internship is required. Students should have opportunity to work in the field at an appropriate wage. Not only will this strengthen their formal course work but the exploratory experience will help students firm up career choices.

8. Students Should be Provided with Guidance and Career Information at an Early Date

Vocational and educational guidance should be a part of the program at all levels. Students should be aware of the opportunities and qualifications for continued formal education at technical and four-year colleges. In addition, the opportunity to progress on the job and to move to more responsible positions should be outline. Both formal and informal study opportunities should be stressed.

9. Previous Training in a Special Instructional Area Should be Recognized

Students who matriculate in technical college programs with previous study in the subject at the high school level may well be considered for advanced standing based upon an assessment of their previous training. Their total educational program may not be lessened but they can expect to develop higher level skills and abilities.

10. Regular Meetings of Professional Leaders at Both Levels of Instruction are a Necessity for Good Articulation

Understanding and articulation of programs requires dialogue among the leaders of such programs. If leaders do not have mutual respect and understanding, articulation at lower levels is not likely to occur.

11. Teaching Staffs in Specialized Instructional Areas Should Meet Regularly to Share Ideas

Instructors at both levels should have opportunity to meet regularly in professional meetings or technical subject-matter groups to discuss common interests and concerns in their specialized instructional area. These sessions might take the form of seminars, workshops, or other in-service meetings.

12. Leadership Development Should be a Part of the Education Program

Education for citizenship and leadership in a democracy should be provided at both levels. Organizations or clubs provide this opportunity

in a systematic way. Organizations must reflect the needs and interests of the age group for which they are designed.

Looking toward the other end of the spectrum, the New York State College of Agriculture has a staff member assigned as liaison with the S. U. N. Y. units (Agricultural and Technical Colleges) with primary duties in articulating the 2-year and 4-year program. His major concern is the transfer of students to the 4-year College of Agriculture. The College of Agriculture at Cornell sponsors an annual meeting of administrators and key leaders from both groups to insure that continued dialogue is taking place.

As you can gather from the remarks to this point, I strongly feel that there is a place for all levels of instruction in agriculture. Post-high school education in agriculture will not, in my opinion, replace the secondary program; it will complement it. Nor will technical education in agriculture "cut" into the 4-year program. Both will be strengthened.

What are our concerns? Well, articulation of programs is one--but only if you have programs to articulate. The recent concluded series of regional seminars sponsored by the U. S. Office of Education, and chaired by Prof. Howard Sidney of the SUNY Agricultural and Technical College at Cobleskill, New York, were designed "to expedite the development of vocational and technical programs for agricultural occupations at the post-high school level in area vocational schools and community colleges." Among the concerns discussed at these meetings were the need for such programs, the curricula to be offered, staffing, facilities, occupational experiences, student organizations, and the development of guidelines for the total instructional program. Consequently, we can expect continued growth and development in post-high school programs in agriculture.

In case you may be interested, the study in New York embraced the following steps:

Step 1. Identification of the curriculum areas to be studied.

Step 2. Study of course outlines of high school and college programs in these areas.

Step 3. Visits to selected institutions to observe the programs.

Step 4. Conducting a series of conferences with representatives of high schools, State Education Department, and state technical colleges to study curriculum offerings, selection of pupils, competencies to be developed, and entry level jobs open to graduates of the various programs.

Step 5. Making recommendations or suggestions regarding improved articulation, understanding, and future development of the programs at the high school and college level.

Step 6. Preparation of a report with suggested guidelines for improving the articulation of high school and technical college programs in agriculture.

Step 7. Dissemination of the findings to educational institutions and interested individuals.

This then suggests a possible way to study the problem. No amount of study, however, will replace the basic requirement of continued communication and cooperation among the agencies and professional staffs involved. Good luck to you in the process in your several states.

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