

two-year Schools of Agriculture had no reason for existence. They then became two-year post high schools, training primarily on the vocational level.

Gradually over the years the Ag-Tech Colleges evolved into the level of technical training we carry on at the present, the purpose of which is to train technicians. Technicians by our definition work in an area between the skilled workers and the

professionals.

Future possibilities perhaps may lead to the evolution into an upper level college which students would enter well backgrounded in basic sciences and liberal arts. We would take them from there with graduates entering technician occupations or graduate programs.

How To Organize Two-Year Colleges

Howard Sidney, Chairman
Agricultural Division
Agricultural and Technical College
Cobleskill, New York 12043

As you will note from your program, I am attempting to represent Neville Hunsicker. Neville sends his personal regrets for not being here to take part in the conference in person. I know how Neville feels about this, because he is keenly interested in all agricultural education, and particularly at this time, the post secondary programs. Neville was looking forward to being present, however, due to a change of plans, has to be in his office for urgent meetings this week. I can express some of his thoughts for your consideration here at the conference.

Neville has observed during his lifetime the upward movement of vocational agriculture. I am referring to "upward" in terms of the maturity or age level of students in the programs.

Since the Smith-Hughes Act, Vocational Agriculture has moved from the 9th and 10th to the 11th and 12th grades. Now – in addition to this – many of our young people will need a technical education at the post secondary level to prepare them for positions as technicians.

Farms have continued to grow larger, requiring owners and managers with more education and a better background of experiences to become successful. The large specialized farms purchase more services, which in turn, requires young men with competencies in the agricultural businesses and services to supply these needs.

The business of processing and distribution of agricultural products has created a demand for an increasing number of agricultural technicians. This change in the agricultural industry, coupled with the increasing population – and the recognition that agriculture is more than just farming – has brought attention to the importance of the post secondary programs in agriculture. The development of our natural resources, including the forests, rivers, lakes, and parks for recreational use, are all associated with the applied sciences in agriculture, therefore, agricultural education in the total spectrum is an introduction to agriculture in the elementary grades; career exploration and vocational agriculture in the secondary schools; post secondary instruction in agriculture to

prepare graduates at the technical level; and the four-year colleges of agriculture to train our specialists, scientists, teacher-educators, and research men. The young farmer and adult programs are even more important now than they were in the past, since a continuing education is necessary to keep up with the changes in agriculture.

Agricultural Education can be no stronger than all of the programs at every level. The post secondary programs in the two-year colleges and vocational technical schools are an outlet for more young people to continue their agricultural education. A substantial number of these young people, being exposed to additional agricultural education, will continue in the four-year colleges of agriculture. The two-year colleges are dependent upon the secondary schools for the motivation and introduction to agriculture for many young people in the same manner that the four-year colleges are dependent upon the two-year colleges and technical schools. Therefore, we must expand vocational and technical programs at the post secondary level to have a complete program of agricultural education available for young people, and for those who desire to continue their education.

We have observed the constructive results of the Future Farmer organization in the development of leadership characteristics for students majoring in vocational agriculture. As the two-year colleges are organized, including agricultural education, these youth leadership activities must also be an integral part of the educational programs if the post secondary offerings have, as one of their objectives, the development of competent agricultural leadership.

It is imperative that agricultural educators develop post secondary programs in agriculture in the two-year colleges. These are the people who know the needs in agriculture and who have the education, motivation, and ability to develop the post secondary programs.

The NACTA organization is to be congratulated for holding their Annual Conference in a two-year college and for devoting this conference to the two-year technical programs in agriculture.

ORGANIZATION OF TECHNICAL PROGRAMS IN JUNIOR COLLEGES

Earl L. Gerstenberger
South Plains College

Dr. Gerstenberger is chairman of the Department of Agriculture at South Plains College, Levelland, Texas.

My comments will be directed to the organization and establishment of 2 year technical programs in the junior college (community) structure. I will touch primarily on four points:

1. The administrative structure of technical-vocational programs in Junior Colleges.
2. The procedure for establishing technical-vocational programs in Junior Colleges.
3. The reasons why 2 year technical-vocational programs should be

oriented in Junior Colleges rather than extensions of 4 year institutions, and

4. What the relationship between 2 and 4 year institutions should be.

Administrative Structure

The Technical-vocational division of a Junior College is headed by a director who has the responsibility of coordinating and developing the technical-vocational programs and who is responsible directly to the president of that institution. While the director is responsible for administering the programs, Departmental Chairmen (agriculture) have the major responsibility in course development, in the

appointment of an Advisory Committee and in establishing equipment, facility and supply needs. Departmental Chairmen are directly responsible to the Director. On the other hand, the State Board of Education plays a supervisory role in the administering of technical-vocational programs and gives final approval to funds and new technical-vocational programs.

Establishing Technical-vocational Programs:

The procedure for establishing technical-vocational programs in the Junior College is not unlike procedures used in other institutions. THE BASIS OR JUSTIFICATION OF A TECHNICAL PROGRAM IS FOUNDED IN THE NEEDS OF THE REGION SERVED BY THE COLLEGE. In justifying such programs two questions must be affirmatively answered: (1) Is there a need by industry for employees with technical training and (2) is there an adequate source of prospective trainees interested?

After establishing the need for a technical program, an Advisory Committee is appointed consisting of representatives of the industry to be served.

This Committee acts in an advisory capacity and its responsibilities are centered around curriculum development, course content and establishing the skill-level students are to achieve. This Committee may also be instrumental in securing "on the job training" sites, job placement and establishing faculty qualifications.

A faculty is then employed. The faculty will complete the development of the program to include course outlines, determine laboratory and equipment needs.

The program is then submitted to the State Board of Education for review; the board approves or disapproves it.

Following approval, application for funds is made to the T.E.A.

In conjunction with the technical programs in a Junior College, there is a counseling staff that tests and counsels incoming students and assists them in selecting a technical program.

A job-placement service is established for placement purposes.

Periodic review by the Advisory Committee is conducted to determine the progress and effectiveness of the program. There is a follow-up study made of graduates to determine if the needs of industry are being met and if training has been adequate.

Two-Year Technical-Vocational Programs Oriented in the Junior College:

There are distinct advantages for orienting technical-vocational programs in Junior Colleges as opposed to two-year extensions of four-year institutions.

1. Four-year institutions lack knowledge and understanding of the philosophy of Junior Colleges and technical-vocational education of a terminal nature.
2. Junior Colleges have locally elected Boards that are sensitive to local needs. This is not the case with most four-year institutions.
3. Junior Colleges are not tied down by old academic cliques and traditions. That is, they are not restricted to liberal arts philosophies that certain courses must be taught, such as - literature, foreign languages, and the traditional science. The Junior College is at liberty to TAILOR courses designed to meet the specific needs of the Technical Program. This includes science, math, communication skills, social studies, not to mention the specific skill area courses.
4. The faculty of the Junior College is hired and devoted to full time teaching. Promotions in rank and salary are directly determined by this. Rank and salary at the four-year institution (two-year extension) are determined to a large extent by publications and research conducted.
5. There is a complete separation of funds in the Junior College. Two-year extensions of the four-year institutions could easily become a "step child" should funds in the four-year institution become critical.
6. In many instances the Junior College already has facilities, equipment and faculty that can be used in technical programs without duplication of effort or cost.

What role then does the four-year institution play in the

two-year technical-vocational area? Primarily (and, I believe, one of the critical areas in technical-vocational education) that of supplying qualified instructors.

Gentlemen! We must face the fact that technical education on the two-year level is a reality and is gaining momentum. We are now experiencing difficulty in finding qualified instructors. To project this momentum over the next 10-15 years will create a crisis in qualified instructors.

Gentlemen! We do not need instructors trained in general agriculture. We need instructors that are educated in a specialized area, such as, Livestock Production, Feedlot Management, Animal Science, Horticulture, with the educational background to qualify for teaching.

I can also visualize that these instructors have industrial-business (on-the-job) experience in the field of their specialty.

In addition to teacher training I believe that the four-year institution can open the channels for a "quick response" flow of information in new developments and innovations. Therefore, I can visualize the need for a short course or seminar type program at the four-year institution designed to keep the Technical Instructors current.

In conclusion, I'd like to say that both the two-year institution and the four-year institution have an important and exciting responsibility in two-year technical education. The trend has been established and the Junior College and other two-year institutions have accepted that challenge.

The four-year institution should not search for ways to offer similar programs. However, they should concentrate on finding out the needs of instructional personnel and adapt their programs so these can be supplied.

DISCUSSION GROUP REPORTS

GROUP II

Chairman: Earl Gustenberger

Recorder: Frank Carpenter

Other Participants: Norm Noecker, Hal Barker, Robert Wheeler, Donald Demick, Jack Treloan, Franklin Eldridge, Robert Crane

The Organizing of 2-Year Colleges: A Structured Approach Procedure for establishing:

1. Establish need from job standpoint and from student interest and supply.
2. Form advisory committee to help determine curriculums, course content.
3. Obtain faculty, who will assist in program development.
4. Get program approved by State Board of Education. Apply for funding from State and Federal Agencies.
5. Student recruitment - an educational effort.
6. Follow-up - Student quality and training adequate? Counseling staff and placement services can help here.

Help is needed in program development and in making and interpreting surveys of need.

The selection of faculty is of utmost importance. Teachers for these schools should be hired if they can do what's needed to be done and if they can show and teach others how to do the job or clusters of jobs. They should have a "feel" or concept of what the work area involves. Some part-time teachers can be used; others will need to be full-time.

Vocational Agriculture is a good source for teachers if they have a specialty and have kept up-to-date in it. Technical program graduates are a good source of future teachers.

Teachers should be licensed for skills.

Attitude of administrators toward the programs is very important.

Same instructors should not be teaching courses for 2-year technical and for college credit.

Degree requirements should not be of major importance in technical teacher requirements, nor should degrees be a major consideration in salary scales.

Unstructured Approaches

1. A physical plant was available and needed to be used some way.
2. 2-year community colleges and area vocational technical schools

are in operation which do not now include any agriculture or agriculture-related courses.

DISCUSSION GROUP REPORT Group III. Headed by Rudy Hilst

Attendance: Four members from 4 year schools. Seven members from 2 year schools.

Question: How can a 2 year technical program be started in a state where none presently exists?

Comments of group members:

1. Don't worry about transfer credit in setting up a 2 year technical program. If it is a quality technical program, transfer credit will take care of itself.
2. A way to overcome tradition and opposition at the 4 year school starting a program could be to use completely new people to plan and start the program and to use separate facilities. Alfred used an approach of this type in the Wellsville Vocational School.
3. Item 2 would depend on who the administrating body is.
4. A program will have more chance of success if the people can come to the university and demand the establishment of a course. The usual way is to establish a program, then force the people to accept it.
5. Improved communications with 4 year schools was given by two delegates as an important advance in technical education on the two year level.
6. Where a 2 year program is part of a 4 year school, it should be either completely separated by distance or completely combined with the four year school in all respects. This will prevent the 2 year students from being considered second class citizens on campus. Students should be housed with, and have all the privileges granted to 4 year students.
7. Industry survey is not always a good indicator of the potential success of a program. For example, N.C. has a large need for poultry technicians. They started a program in this area that lasted only a short time. They now offer only 2 courses in poultry and last year had no students sign up for either.
8. A delegate from a western school said that they started a 4 year technical program to provide industry with B.S. degree people "who know something about agriculture". Most 4 year programs are oriented toward research and leave a large gap in our labor force.
9. A technical program must teach college level courses rather than vocational level courses.
10. To accomplish no. 9, a school must hire college teachers rather than vocational agriculture teachers. A technical teacher should be specialized in a subject field but not as specialized as a PhD doing research.
11. Professional guidance and counseling of students in agriculture is one reason for the success of our students. The 2 year teacher must do an exceptional job of this because he does not get students that are uniform in ability. The success of many transfer students depends on placing the right student at the right 4 year school.
12. All technical programs should insist on a high school diploma as a very minimum entrance requirement.

IF A MAN KNOWS HOW TO DO A TASK, HE WILL ALWAYS HAVE A JOB.

IF A MAN KNOWS WHY HE DOES THE TASK, HE WILL ALWAYS BE THE BOSS.

Teaching **HOW** is vocational education.

Teaching **WHY** is technical education.

REPORT – Discussion Group IV ORGANIZING TWO-YEAR COLLEGES

Discussion Leader – Hilbert Kahl – Northeastern Jr. College – Sterling, Colo.

Recorder – Harland Hasslen – University of Minnesota Technical College – Crookston, Minnesota

This group selected eight (8) areas from a list of fifteen (15) suggested by Howard Sidney as those which administrators will ultimately face in the organization of two-year colleges. A summary of the items which were discussed in variable degrees

of intensity are listed as follows:

Item I. Determining Needs for Technical Programs

1. Industry in various ways expressing their needs consensus opinion indicated this to be the most ideal situation and one which each institution ought to value with the highest priority.

2. Program committees constantly researching the apparent needs of industry. A considerable amount of discussion was given to the point that Placement Personnel Services and indicated employment possibilities ought to be used to the fullest in determining programs.

3. Statewide planning boards who ought to make their decisions on careful evaluations of industry on a broad based view of industry needs.

A great deal of concern was expressed that programs of a specific institution be based upon the comparative advantage of the institution to offer the program. Real concern was expressed that each institution not attempt to be all things to all people and establish excessive duplicate programs within a given area or state.

4. Community Surveys

While this was listed as a method for program determination, fears were expressed that this might become too provincial unless the community might have a large employment demand created by a specific industry or an unusual labor situation. The tendency to overrate the need potential remains a constant danger in many survey situations.

Item II. How to Secure Students for Enrollment

1. It was suggested that the name given to programs might have a tremendous impact upon the ability of certain programs to attract students. General agreement prevailed that certain titles might tend to discourage students or to endanger a program's chance for success.

2. High powered recruiting techniques using gimmicks and attention-getting devices used at every possible public display. Those utilized by advertising specialists could be simulated.

3. Use of advisory boards from industry and business that may also serve to become recruiters as well as placement resource personnel.

4. Responsible magazine articles trade and industrial as well as responsible newspapers and written publications.

5. Effective recruiting in secondary schools by experienced persons who can reflect program understanding to potential students.

6. Honesty in recruitment

Refusal to admit more students in programs that can't be honestly programmed or placed – especially when knowledge of this program is evident.

Item III. Laboratory Facilities

1. It was suggested that programs not be attempted that cannot be adequately equipped with suitable laboratory equipment.

a. students at the technical level must have the opportunity to see rather than theorize.

b. college administrators or budget personnel must be made aware of the greater need for laboratory equipment which costs more than conventional programs in other areas of education.

c. selling this idea might be based on the premise that frequently agriculture programs return income to the institution.

Item IV. Type of Student

1. Only brief consideration was given to this topic, but it was generally agreed that students in two-year programs must be those who can be motivated to accept the learning by doing philosophy along with the desire to prepare in a variety of experiments in communicative skills, life understandings, and social interplay.

2. Some committee members agreed that some students might be acceptable on the basis of avocational as well as vocational interests.

Item V. Budgets

1. The discussion on budgets was closely tied to the considerations of facilities and program evaluation. An excellent point was made that laboratory facilities and equipment are not expensive unless the programs for which they are needed are failures.

2. Part of the evaluation process ought to be that of determining the:

- a. number of programs served by the budget
- b. the number of students placed in employment budget
- c. the total development of the program in the college

Item VI. Faculty

1. It was suggested that a good faculty ought to be recruited from industry as much as possible.

2. Many thought that too many good faculty members are lost because of certain unrealistic requirements including:

- a. unrealistic educational demands (degrees)
- b. cumbersome "nit-picking" details and duties
- c. salaries not competitive with business and industry.

REPORT OF DISCUSSION V "HOW TO ORGANIZE TWO YEAR COLLEGES"

Chairman – Dr. Harold Ecker, Director, Institute of Agricultural Technology, Michigan State University