

Agricultural Education

Volume 46

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Number 3



J. J. Patterson, left, Southern Illinois University, and his Brazilian counterpart Helio Bemfica, review plans for an in-service educational program with Aomir Florin, center, coordinator of in-service agricultural education. (Photo by Dick Welton, UNDP project, Brasil).



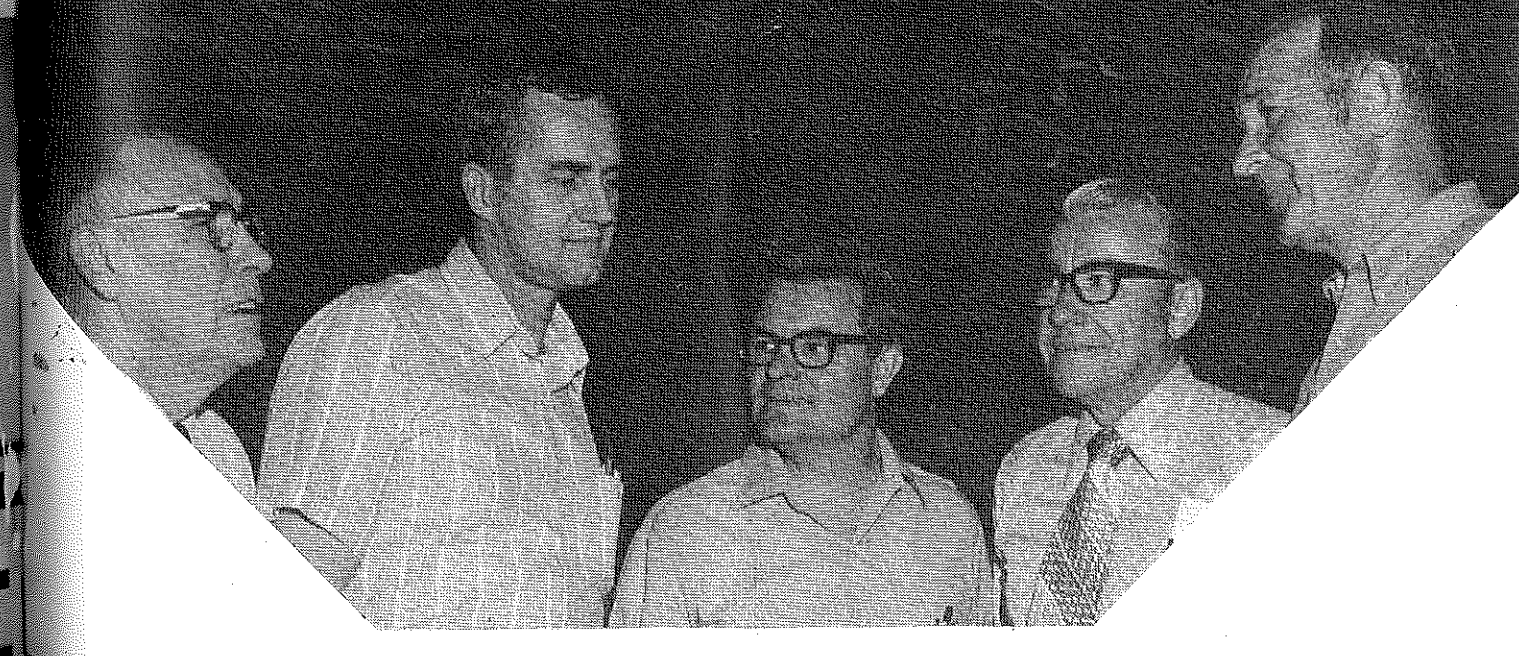
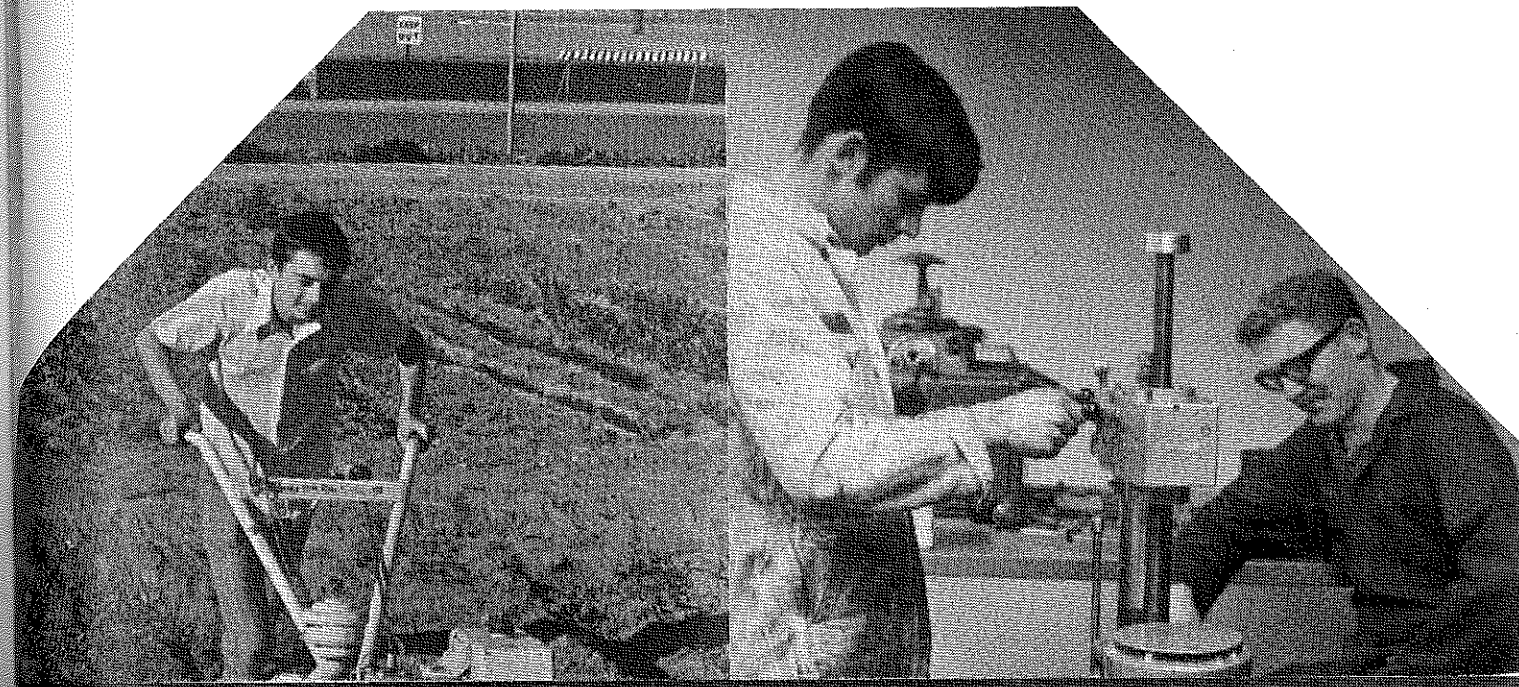
SMALL ENGINE WORKSHOP — Fred Wunderlich, center Birmingham Electric and Battery Company, instructs J. W. Meigs, Centerville, and Charles Harrell, Springville in repair of small gas engines, featuring "hands on" experiences, in trouble shooting (disassembly, repair and reassembly of 2 and 4 cycle engines. (Photo from Cecil Gant, Alabama State Department).



Alpha Tau Alpha Wives Organize and meet regularly at the University of Nebraska. The purpose is for fellowship, and instilling a greater insight into the role of an agriculture teacher's wife in a rural community. Mrs. Roy Dillon, wife of the ATA Advisor, is the faculty sponsor. One program was "What The Community Expects of the Vo-Ag Teacher and His Wife." (Photo by Richard Douglass.)

Stories in Pictures

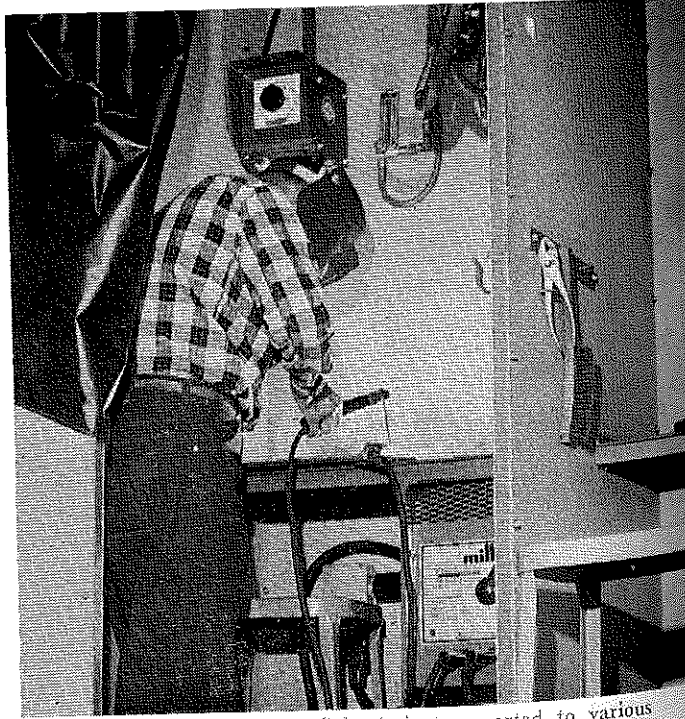
by Richard Douglass



**Theme—CAREER EDUCATION:
Articulation Among Local,
Area, and State Programs**



This 37 foot long mobile welding trailer, owned by the Southwest Wisconsin Vocational-Technical School, is transported to various locations in the five-county district. The trailer can accommodate eight arc and oxy-acetylene welders and four M.I.G. and T.I.G. units simultaneously. Inside the mobile welding unit, a Production Agriculture student is busy practicing stick-electrode welding techniques. The trailer contains its own power, storage space, and heating and ventilating units. (Photos from John F. McNeill, Supervisor of Production Agriculture, Fennimore, Wisconsin).



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The
**Agricultural
Education**
Magazine

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Send articles and pictures to the Editor or to the appropriate Special Editor.

COVER PHOTO

Arizona's Junior High Agricultural Exploratory Programs help articulate the school's Career Education Concept with the Vocational Programs. (UL) Fall Garden Preparation — Rototiller is being operated on the land laboratory by Terry Beaty, Carson Junior High School student, Mesa, Arizona. (Photo supplied by Carlos H. Moore). (UR) Students Charles Trent and Dennis Miller rebore engine cylinders on a four cylinder block. They are participating in a cooperative training program at the Helena Vocational Technical Center. (Photo by Jim Lewis, Agri-Mechanics II Instructor.) (Lower) Reviewing conference activities are program participants at a state Articulation Conference for Higher Education in Agriculture April 13-14 at Southern Illinois University of Carbondale. Shown are, from left: Wendell E. Keeper, Dean of the SIU School of Agriculture; James L. McBee, Jr., Normal, chairman of the conference steering committee and head of the Illinois State University agriculture department; Prof. G. B. Marion, chairman of the SIU animal industries department; G. Robert Darnes, Springfield, member of the Illinois Junior College Board; and Eugene S. Wood, assistant dean of the SIU School of Agriculture in charge of local arrangements for the conference. More than 50 educators from Illinois universities and junior colleges with agricultural programs attended the two-day conference held at SIU's Little Grassy Lake Outdoor Laboratory facilities. The discussion concerned new trends in university and community college teaching and program development in agricultural education. (Staff photo, Southern Illinois University at Carbondale).

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Editorials

From Your Editor . . .

THE CUSTOMER

DESERVES GOOD ARTICULATION



Roy D. Dillon

The problem of articulating programs of agricultural education within a state, area or larger region is difficult to grasp; probably because there is likely to be a wide variation in public policy regulating the organization and operation of the various levels of educational programs.

The problem is further complicated by the fact that the individual, who as he makes a choice of post-high school to attend for example, might select one within commuting distance from his home. This school might, however, be in a neighboring state. The student may, on the other hand, decide to go further away from home for his higher education. In either case, the student expects and deserves a continuation educational program that does not unnecessarily duplicate the secondary school program and that will provide the needed and extended competencies to prepare him for his occupational goal.

Educational policy makers and program planners who are serving the clientele groups mentioned have only choice;

to meet together for the purpose of articulating or "stair-stepping" course content. The classroom teacher needs to be heavily involved, for it is he or she that should help decide how to "step" the content.

Essential information needed in the articulation planning process is data on where students enroll from, so that clientele groups can be identified, and so teachers and educational leaders from the school systems in those geographical areas can be involved.

State Departments of Education and Teacher Education Staffs should take the leadership in planning articulation conferences, for it is these groups who have the best vision of the state, area or regional need.

The study of articulation problems has been hard to handle because many secondary schools have "forgotten" about their graduates, and post-high schools have enrolled students not knowing enough specifics about the educational programs from which the students came. Accurate follow-up data is needed by program planners in the articulation decision making process, so the customer, the student, will be getting his educational moneys worth.

-RDD

Guest Editorial . . .

**A PRACTICAL APPROACH
TO ARTICULATION**

Curtis E. Loewen
*Agricultural Education
Oregon State University, Corvallis*



Curtis E. Loewen

For several years we have recognized the need for articulation between our rapidly developing community colleges and our expanding secondary schools. The major problem we faced was determining *what* specifically was to be articulated and *how* was it to be accomplished?

Since ornamental horticulture is the fastest growing industry in Oregon we have focused considerable effort in developing programs at both levels to accommodate the need for trained workers. While many of our urban programs in vo-ag have included both integrated units and specialized courses, the community colleges have also initiated basic and specialized instruction in ornamental horticulture. It became apparent after several vo-ag graduates enrolled in the community college programs that too much duplication was being encountered to maintain the interest of students who were eager to move on.

The challenge to minimize needless repetition between

The first step was to identify a common core of competencies which should be taught to all students in the base program.

these programs was met with enthusiasm by 19 instructors representing high schools, area schools, community colleges and the university. This group of teachers met one evening per month for nine months to develop an articulated program in ornamental horticulture.

The first step was to determine the basis for selecting the common core of instruction. This core would serve as the foundation for all horticultural programs from which subsequent preparation and/or specialization could be developed. The instructor group agreed that the core should consist of those competencies which are common to the major horticultural occupations. A study* completed recently identifying those knowledges and skills needed most by ornamental horticultural workers in Oregon was accepted as

(Continued on next page)

Industry could readily identify what the worker does, but had difficulty isolating "what" the worker should know in order to perform the tasks or job.

the starting point for the curriculum core. The study included technical competencies, basic business, communications and human relations.

Next the group of teachers examined the list of (about 45) competencies considered most important to the seven occupational areas comprising the industry: nurseries, greenhouses, florists, garden centers, parks, golf courses and landscaping. They found the competencies needed further refinement to be useful as curricular elements. For example, the competency "to know the environmental factors influencing plant growth" was obviously too general, hence required further detail. The large group was divided into several cells of three or four teachers, each cell accepting responsibility for refining certain competency areas based upon the expertise inherent in the cell, i.e., identification of common plant materials, pest control, plant food and growing media. Once the areas were divided among the cells, each small group began to translate the competencies into more teachable elements. The preliminary work of each cell was referred back to the large group for modification and/or approval.

It was interesting to note from the study used that the competencies identified by industry need the professional interpretation of the teacher. Industry could readily identify "what" the worker does but had considerable difficulty isolating what the worker should "know" in order to perform the task or job. At this point, the expertise of a

knowledgeable teacher is important to assist in determining what to teach and how to teach it.

After the preliminary work of refining the competencies was accepted by the large group it was felt that a list of suggested learning activities should accompany each competency. Considerable discussion of methods and techniques prevailed among the group to capture the best ideas. A list of current references were also added to the various competency areas. Two questions were left to be answered: How much time was needed to teach the basic core, and what were the competencies requiring highest priority? Since the instructor group included both former industry personnel and those teachers having regular contact with the industry via their work placement programs, their combined experience served as their framework for deriving priorities.

The Challenge was to minimize repetition.

The final product was a basic curriculum guide for ornamental horticulture including "student outcomes," "suggested learning activities," and "selected references." The time allotted for the common core of instruction was equivalent to a one-year, two-hour per day program. The unquestionable value of the project came through the conscientious involvement of the group who discovered the difference between what they are teaching and what they agreed they ought to be teaching. This was the first time some of these instructors had ever met together even though they taught in the same city. ♦♦♦♦

* Locwen, Curtis E. "A Curricular Model in Ornamental Horticulture for Vocational Agriculture in Oregon" unpublished dissertation, Agricultural Education, Oregon State University, 1970.

Themes For Future Issues

December — Career Education: Accountability In Evaluation
 January 1974 — Supervised Practice
 February — Staffing Agricultural Programs
 March — Looking Ahead in Vocational Agriculture
 April — Production Agriculture — Still in Vogue
 May — Summer Accountability
 June — Administration and Supervision — Local to National

July — Program Planning and Evaluation
 August — Teacher Education
 September — School Organization and Articulation
 October — Instructional Technology
 November — Improving the Profession — the Job and the Teacher
 December — Better Teaching and Learning

BOOK REVIEW

HERITAGE OF PLENTY, by Harold D. Guither. Danville, Ill: The Interstate Printers and Publishers, Inc., 1972, Second Edition. 295 pp. \$4.95.

The subtitle, "A Guide to the Economic History and Development of U. S. Agriculture," describes the content of this book. The introduction deals primarily with the concept of economic growth. The author, an

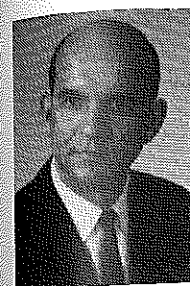
associate professor of agricultural economics at the University of Illinois, Urbana-Champaign, divides the history of U. S. agriculture into six time periods and devotes a chapter to each period. The six chapters are 1607-1775, 1776-1860, 1860-1914, 1914-1939, 1940-The Present, and Perspectives for Future Agricultural Development. Each chapter follows a similar format thus making comparisons between the various time periods less difficult. A list of review questions at the end of each chapter emphasizes the important points included in the chapter. Reading references are also included with each chapter to suggest sources for more indepth study.

An abundance of charts, graphs, drawings, and pictures taken directly from the original publication appear throughout the book. The most recent data appearing in the book are dated in the late 1960's; therefore, the reader will have to seek current data from other sources.

Heritage of Plenty would seem to be most useful in college level courses dealing principally with the economic history of agriculture. It should also be in the vocational agriculture library as a reference book.

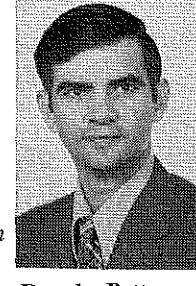
Donald E. Elson
 Assistant Professor
 Virginia Polytechnic Institute
 and State University

ARTICULATION - AGRICULTURE AND CAREER EDUCATION Their Various Roles



Samuel D. Morgan

Samuel D. Morgan
 Vocational and Technical Education



Douglas Patterson

Douglas Patterson
 Vocational and Technical Education

Virginia Polytechnic Institute and
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The farmer who invests in a large new tractor while possessing only horse-drawn cultivating equipment will be about as effective in his production as the technical agricultural education program designed with complete disregard to its feeder program. Technical agricultural education programs should be designed to fully utilize the knowledge and skills possessed by students completing high school vocational agriculture programs. The waste of human resources is disgraceful when phases of an educational program function in discord with other phases of the program. The technical phase of the agricultural education program should be articulated with pre-technical agricultural education programs, with related academic courses, and with the world of work.

Courses and programs should function to encourage rather than block the movement of students from one agricultural education course to another, from academic courses to vocational courses, and from one program level to another. This effective functioning of elements in the educational system requires the planning, initiation and maintenance of a well conceived articulation plan. The central purpose of the plan should be to optimize the effectiveness and efficiency of the educational process to the individual student.

Optimum effectiveness and efficiency of one's education requires articulation at every interface of the educational experience. In agricultural education the interfaces include (1) the point of introduction to the agricultural education program; (2) the interface of agricultural education courses and academic courses in the individual's program; (3) the coordination between specialties and options in agricultural education programs; (4) the interface between levels in the agricultural education program; and (5) the interface of the agricultural education program and the world of work.

The primary determinant of the suc-

cess or failure of the career education concept will be the degree of successful articulation. Career education requires effective articulation among all facets of the educational system. Courses must be redesigned to contribute to student objectives. Occupationally oriented students in agriculture do not need the identical math preparation as the pre-agricultural engineer. A communications course for agricultural education students should be designed to coordinate with the world of work rather than the world of Shakespeare.¹

Initiation and Organization

"The action or manner of joining or interrelating," is the definition of articulation found in Webster. Implicit in this definition is a suggestion that articulation is a dynamic and continuous process that is on-going and changing.

Articulated programs should do a better job of preparing students, and in a shorter span of time.

An articulation process can be initiated at any level within an educational organization regardless of whether the organization is a high school, area vocational school, technical institute, or community junior college. However, support and adoption of the process at the teacher and chief administrator level is crucial to success. Teachers are more likely to be the first member of an educational organization to identify a need for articulation. Often a casual or formal follow-up of former students reveals the following: (1) students required to take the same or similar course work at secondary and post-secondary institutions; (2) loss of credits between similar institutions; (3) duplication of parts or entire courses; or (4) inordinately wide gaps in expected knowledge and/or skills. A desire to protect other students from these inconsistencies is sometimes

sufficient impetus for teachers to initiate an articulation process with other teachers.

Excessive dropout rates, need for additional student enrollment, or taxpayer demand for less duplication of effort between secondary and post-secondary institutions may be incentive enough for administrators to consider an articulation process as a plausible alternative.

As with almost anything new and not well understood, some teachers, mid-management administrators and chief administrators may tend to resist articulation as an alternative approach and viable process for solving some of their problem. Watson² has suggested several elements from human relations theory that may tend to reduce resistance to change. They are:

- (1) Resistance will be less if the project (articulation) clearly has whole hearted support from the top officials of the system . . .
- (2) Resistance will be less if administrators, teachers, board members, and community leaders feel the project (articulation) is their own—not one devised and operated by outsiders.
- (3) Resistance will be less if participants see the changes as reducing rather than increasing their present burdens . . .
- (4) Resistance will be less if the program offers the kind of new experiences which interests participants . . .
- (5) Resistance will be less if participants have joined in diagnostic efforts leading them to agree on the basic problem and to feel its importance . . .
- (6) Resistance will be less if the project (articulation) is adopted by consensual group decision . . .
- (7) Resistance will be reduced if it is recognized that innovations are likely to be misunderstood and misinterpreted, and if provision is

(Concluded on next page)

made for feedback of perceptions of the project (articulation) and for further clarification as needed . . .

- (8) Resistance will be reduced if the project (articulation) is kept open to revision and reconsideration if experience indicates that changes would be desirable . . .

While articulation is desirable and essential between various levels of agricultural education, it is equally essential that articulation occur between faculty, departments and divisions within a given level of education. Intra-organizational articulation may be labeled horizontal articulation while articulation between various levels of education may be labeled vertical articulation. Horizontal articulation may be little more than establishing adequate communication links between teachers in specialty subject areas and teachers in related subject matter such as welding and English and/or math, or farm equipment maintenance and social studies. The purpose of horizontal articulation within a particular school is to identify and focus attention on specific common problems of instruction and/or students.

Career Education requires effective articulation among all facets of the educational system.

Vertical articulation between institutions in a local educational agency and a community junior college should focus on avoiding duplication of course work, phasing or sequencing courses into a hierarchy relationship which facilitates student progress through the two levels with a minimum loss of credit, course or subject matter duplicating and time investment.

Advantages of Articulation

Several advantages may result from a well organized process of articulation. These advantages may be grouped un-

der several headings.

Institutions: Each institution represented in the process tends toward more efficiency in reaching its objectives. More clearly defined objectives and roles of each institution can result from articulation. Agreement among faculty members that one institution will take students to a specific level while the other institution will continue the education process is one significant result of articulation. Trust built between institutions that course credits, performance rating, and grades are valid indicators of what they are purported to be is another possible advantage to each institution.

Students: The student realizes advantages with reduced course duplication and overlap of courses and subject matter. There is usually less time investment required of the student to reach his educational goal. Qualification and preparation for entry into the labor market is reached earlier for the student, and wage earning capacity is extended.

Tax Paying Public: The public and taxpayer may gain advantages from articulation. Costly duplication of programs, teachers, buildings, equipment, and instructional supplies and materials may be reduced through articulation between different levels of education. Accountability of educators to the public can be improved through a well organized process of articulation.

Business and Industry. Business and industry tends to realize advantages since potential employees who are well trained for specific jobs are available earlier. There tends to be clearer understanding on the part of business and industry as to what product each institution is expected to produce.

Summary

Maximum continuity of agricultural education can only be accomplished through a comprehensive articulation program. Articulation of agricultural education must include experiences beyond the classroom and the school-

yard. The individual student must be allowed to move effectively from one facet of his educational experience to another without loss of effort or time.

Articulation of agricultural education programs at various levels can benefit students, teachers, industry, and the public in general. Students obtain a more efficient and relevant education.³ Industry receives a better prepared producer sooner. The general public benefits from the more efficient use of its educational tax dollars and from its increased confidence in the educational system.

Effective articulation requires a well conceived plan supported by all levels of educators and rigorously maintained.⁴ Effective articulation does not occur from happenstance or from the efforts of one segment of the educational system. Even though the classroom teacher is a logical initiator of articulation effort, active support is required of educators at all levels to implement and maintain a successful articulation plan.

The articulation process can be initiated at any level.

A comprehensive advisory council is necessary to manage an articulation program. Articulation must be approached from an over-all point of view, considering the total inputs into the program, all facets of the program, and all types and levels of program results. The effort of articulation is justifiable only if the efficiency and effectiveness of education is increased and the quality of education is maintained or improved. ◆◆◆

1. Linson, M. G., James W. Wilson and M. G. Hunt, "Is Articulation Possible," *American Vocational Journal*, vol. 46, no. 7, October, 1971, p. 88.
2. Watson, Goodwin, "Resistance to Change," *Concepts for Social Change*, Washington: NTL Institute for Applied Behavioral Science, 1967, pp. 22, 23.
3. Dellefield, Calvin, "The Articulation of Agriculture Into the Total School Program," *The Agricultural Education Magazine*, vol. 43, no. 12, June, 1971, p. 291.
4. Linson, M.G. *op. cit.*, p. 30.

paper cover \$7.95.

- The nine chapter divisions are:
1. Principles of Drainage
 2. Drainage Investigations
 3. Surface Drainage
 4. Sub-surface Drainage
 5. Open Ditches for Drainage
 6. Dikes
 7. Drainage Pumping
 8. Drainage of Organic Soils
 9. Drainage of Tidal Lands

This is a Handbook not a text. It is written for use in all 50 states. It is a must

THE AGRICULTURAL EDUCATION MAGAZINE

IMPLICATIONS OF CAREER EDUCATION FOR AGRICULTURAL MECHANICS INSTRUCTION*

Frank Anthony
Agricultural Education Department
The Pennsylvania State University
University Park, Pennsylvania



Frank Anthony

child to the world of work and prepares him for a place in it. What are we doing in Agricultural Engineering and Agricultural Education to get the students acquainted with the world of work in all areas of Agricultural Engineering?

A very important committee of the ASAE — "Education and Research Committee Number 35", Education in Agricultural Mechanics, has produced four reports: in 1944, 1953, 1960, and 1968. The Reports (1), entitled "Agricultural Engineering Phases of Teacher Education in Agriculture," have been brought to the attention of Departments of Agricultural Engineering, Agricultural Teacher Education, Supervision of Agricultural Education. The Reports provided the basis for agriculture mechanics courses in the vocational agriculture curriculum now being used by 11,000 teachers of agriculture working with 845,000 students in secondary schools (2). I would like to ask the question, "Should we follow the same pattern of instruction in five divisions or areas of training — namely, Farm Power and Machinery, Structures and Environment, Soil and Water Management, Electric Power and Processing, and Agricultural Construction and Maintenance?"

Traditionally, since 1917, the instructional program offered in vocational agriculture was primarily concerned with Agricultural Production. The students were career oriented to production farming and the agricultural mechanics phase followed the five areas of education concerned with the problems of the production farmer. In 1963, however, the U.S.O.E., through

the Vocational Education Act, offered the following instructional programs based upon the following occupational areas:

1. Agricultural Production
2. Agricultural Mechanics
3. Agricultural Supplies
4. Agricultural Products
5. Agricultural Resources
6. Ornamental Horticulture
7. Forestry

It would be advisable for Agricultural Educators to develop module courses on shorter mini-course basis, so students will have a better opportunity to become acquainted with the world of work in agricultural mechanics.

From this listing, you can readily see that, in addition to that of the production farmer, there are a number of career opportunities to serve agriculture.

Likewise, the agricultural mechanics program is now being recommended by U.S.O.E. to offer diversified courses in agricultural mechanics at the secondary and post secondary levels.

It should be evident that the course offerings have increased from the five areas in ASAE to fourteen in the U.S.O.E. plan. The problem now arises as to whether the Agricultural Engineering Department will pattern their course offerings to train teachers of agriculture in both pre-service and in-service phases of agricultural mechanization. The main reason for the U.S.O.E. agricultural mechanics courses is to prepare students for entry into job situations. The courses vary in length from nine weeks to one or two years, depending upon the subject matter. If a student is interested in gasoline engines, he should be permitted to take it alone and not be forced to take a whole year of Farm Power and Machinery. As one teacher of agriculture stated, "If you want a steak, you should not be forced to buy a whole animal." To insist upon a "whole course" will

continue to induce school "dropouts."

The whole thrust of career education is to acquaint students with the "World of Work." What are we doing to have the students become acquainted with numerous job opportunities in agricultural mechanics? The present five areas of the ASAE are too restrictive and I recommend that we switch to the fourteen areas as recommended by U.S.O.E.

It would be advisable for teacher educators in Agricultural Education and Agricultural Engineers to develop module courses in "Gasoline Engines," "Building Construction," "Materials-Handling Equipment," "Agricultural Mechanics," "Air Quality Control," "Electricity," "Agricultural Resource and "Recreational Utilization of Natural Resources," to mention only a few. As students are exposed to the short mini courses, they will have a better opportunity to become acquainted with the world of work in agricultural mechanics.

In designing the short courses, one should integrate — as part of the subject matter — essential information about occupations. Shontz (4) found that student achievement was greater when occupational information was integrated with the knowledge of land use and conservation.

Dr. Sidney Marland (3) has earmarked \$50 million for research and career education. He states that 12 percent of the rural high school students are in vocational agriculture programs, 35 to 40 percent are in precollege programs, and 30 to 50 percent are in general education. "General education must be closed out," Dr. Marland reported, "It is put on, a watered-down program with nothing at the end of the line, neither college or a job." If teachers of agriculture were to extend their offerings in agricultural mechanics by offering a greater variety of short mechanics courses and offering them to students other than the vocational agriculture student, they could help in identifying many "general edu-

(Concluded on page 59)

BOOK REVIEW

DRAINAGE OF AGRICULTURAL LAND, by Officials of Soil Conservation Service, US Dep't of Agriculture; Published by Water Information Center, Inc.: Port Washington, New York, Copyright 1973 First Edition. Price in

COMMUNITY RECONSTRUCTION THROUGH SCHOOL OPERATIONS

Harold H. Punke
Auburn University
Auburn, Alabama

While feeding programs, racial integration, public aid to parochial schools and other developments focus attention on nation-wide educational developments, the local community is the point at which changes take effect. This article emphasizes that point through activities in a rural Georgia community.

1. *The Bogart story.*¹—In 1936, Bogart served a 45 square-mile area of about 1600 persons, disproportionately women and old people. There was a post office, general store, cotton gin, blacksmith shop, two gasoline stations, and a railway station. The village had several empty buildings. Many houses lacked paint and several had holes in their wooden porches and steps.

The few community organizations had small memberships. A P.T.A. of about 18 members, typically had five or six mothers attending monthly meetings to hear children sing or recite, and held a "chicken dinner" twice a year—to raise money for library books, etc. There were six churches, four of which tried to maintain Sunday Schools. The average preacher received about \$12.00 per week. There were three school buildings — with dingy interiors, adorned by names and "wise cracks." Some window panes had been pierced by bullets. There were two outdoor surface toilets. There was no palatable drinking water.

a. *Initiative sparked by a few.*—In 1937, two board members and a few teachers generated hope, through numerous home visits and small-group discussions. A week-long program of school-closing events enabled every school child to make a stage appearance — pleasing his parents. Some 400-500 people attended, aided by free school-bus transportation, several of whom saw one another for the first time.

In growing recognition of the school's importance and its need for facilities, bonds were voted in July 1937 for a vocational building. Local labor was used exclusively, including some 40 tradesmen. The \$12,000 building, planned for both school and community

use, was opened in the spring of 1938. Shop equipment was secured through cooperation by federal, state and county agencies. Considerable household furniture was made in the shop, much farm equipment was repaired, several brooder houses were built, and during some years as much as 1000 bushels of cotton seed was treated at the vocational building.

A community cannery, added to the building, was used from early-vegetable time in the spring through "hog killin' time" in the fall. As many as 2600 cans of produce were canned daily. During the 1940 season, 167 of the approximately 300 families in the community used the cannery.

A 1938 Halloween Party, sponsored by a revived P.T.A., netted funds to buy 300 folding chairs for the gymnasium. Modern desk-chairs for the high school, provided by the school trustees, improved student spirit. Home economics students cared for young children while mothers attended P.T.A. A lunch program was inaugurated for the lower grades in 1939, with a P.T.A. sponsored "community garden" established in 1940 to supply needed produce. Land, labor, seed, plants and fertilizer were donated locally, although W.P.A. funds helped. In 1941 the Bogart community garden and lunch-room operation was adopted by other schools in the county. Children paid 4c per lunch—by contributing food, work or money. Feeding was extended to all elementary and high-school grades in the spring of 1941, with 190-200 pupils fed daily.

Community efforts regarding health were only in part successful. Window screens, better diets through gardening and poultry raising, sanitary toilets at school, and drilling a 285-foot well to supply water at school were among improvements. Typhoid vaccine and diphtheria serum were available without individual charge. But efforts to start a county health program were unsuccessful, and home visits indicated a wide use of patent medicines.

b. *Adult classes.* — There has been adult education ever since persons

throughout life learned from one another, although the term "adult education" may not have been used until something resembling organized classes for adults appeared. In Bogart, adult classes stressed agriculture and home economics, and in 1940 there were 425 visits by vocational teachers to 170 different homes. During the two years ending in June 1941, adult home-making classes averaged 25-30 members, and considerable painting and planting resulted from the effort concerned. A Community Woman's Club grew out of these classes, which in turn sponsored a community library—housed on school premises. A summer reading club for children was organized, to keep reading interest alive during the school vacation. Children often took books to adults who were unable to come to the library.

Adult classes for men grew in membership to about 30. Through these classes and related effort in 1940, some 75 acres of land were terraced, 1000 trees belonging to 25 different families were sprayed, crop rotations for about 45 farmers were worked out, and considerable breeding stock was secured. During 1940-41, the Future Farmers of America, with their fathers, set out 25,000 pine seedlings.

Along with and apart from the classes noted, a great deal of adult education took place through the social mobility which the foregoing activities stimulated—including speculation as to more extensive possibilities.

c. *Cooperation.*—During the spring of 1941, the Y.M.C.A. held seven weekly meetings, with about four-fifths of the boys attending. The gymnasium was conducive to various types of indoor recreation, as patrons gradually learned to participate rather than "just sit." In 1941 there was a movement to use school buses two evenings per week in transporting patrons to school programs.

Denominationalism prevented the organization of a unified Sunday School, although for eight years preceeding 1940 there had been a non-denominational Vacation Bible School—with 96

attending in 1940. School facilities were used by religious groups for plate suppers, fish fries, barbecues, etc. There was not much cooperative marketing of garden produce or farm crops, and not much cooperative buying except with regard to fertilizer, fruit trees and breeding stock. Donations of goods by Bogart merchants for carnivals, barbecues, etc., developed "loyalty" to town merchants.

d. *Race Relations.*—During the time here concerned, federally required integration of educational and other public services was not conspicuous. Not many negroes lived in the Bogart community. Some of those who did, used the school cannery and the school shop. Some negro farmers sought advice from the white agricultural teacher, and a few attended meetings of the Agricultural Adjustment Administration on the school campus.

2. *Implications and prospects.*—Several broad implications can be drawn from the Bogart experience.

a. A major lesson relates to cooperation—its role in developing and using human and material resources; areas of community life to which it may apply; how to get it started; its possible expansion from local situations to regional, state, national and international potentialities. Team work depends on cooperation—in school and professional athletics, business management, school and university operation, government, etc. The local school is a good starting point. A major difficulty in Peace Corps operations among backward peoples concerns teaching them to work cooperatively toward common goals. Race relations may have cooperative orientation.

b. Another lesson concerns the extent to which the lives of individuals are organized around the way they make a living. Vocational attachments are not only major determiners of family income, with related budgetary and economic considerations, but one's job greatly influences his development of skills, attitudes, friends, recreation, residential attachments, etc. This applies to both rural and urban situations, and it applies internationally.

c. It may be easier in rural than in urban areas to think of the school as a community center. Bogart illustrates possibilities respecting an important type of rural setting. Urban schools could be used more extensively than most of them are regarding health considerations and habits; or regarding

greater understanding and participation as to the vocational world, especially in the intermediate grades and beyond—with more concern for helping youth find summer, part-time, or full-time jobs. Expansion of diversified occupations programs implies one type of gesture in this direction. The role of jobs, as sharing in the world of adult importance, is related to juvenile delinquency.

While vocational and other counseling can help, as to jobs and related implications, more teachers and patrons need the type of interchange that characterized the vocational teachers in Bogart. The 12-month school, perhaps with program variation similar to the project aspects of vocational agriculture, might aid teacher-patron relations. University programs for teacher preparation, to give teachers a different orientation and competence, are also important.

d. Bogart can teach that in a dynamic society most communities, most of the time, reflect varying areas and stages of disintegration and reorganization. The point then is to understand why the process is necessary, and how to foster it constructively.

e. Several Bogart specifics may have wide application:

(1) Supervised stage appearance by pupils in most schools will contribute to patron-school rapport.

(2) Most schools could organize a summer reading club. (Developments in many communities go well beyond Bogart, as to 4-H Club and scout groups, or as to summer use of school facilities.)

(3) Perhaps in most schools, health teachings and practices could be more extensive and more effective than they are—as to food, exercise, drugs, etc. Some school cafeterias run children "through the mill," somewhat as cattle are handled in mid-Western feed lots.

(4) Vocational understandings and job placements have been noted.

(5) While gardens may not be possible for residents in high-rise apartments, for many Americans they are possible. A garden may have value not only as to producing vegetables relative to physical health, but as to reducing frustrations relative to mental health.

(6) Children participated in several Bogart developments. Schools in general might work with local organizations that are presently concerned about environmental improvement — as in part reflected by such terms as "Help

Keep the City Clean," "Johnny Hori-zon," etc. School-community rapport, as well as child learning opportunities, might thus be fostered. The relationship implied, resembles the vocational involvement previously noted.

(7) Perhaps in most communities, adult classes could be organized around a considerable range of subjects — health, child care and development, economic inflation and family budgets, governmental structure and functioning, or general knowledge and a variety of interests shown by small groups.

f. Bogart also teaches that much can grow out of the imagination and initiative of a few competent and dedicated persons. There can be little objection to a similar exercise of imagination and initiative in many communities, rural and urban, rather than "sit" indifferently — in a vague hope that "things will get better," or that some outside agency such as big government will do what is needed. ◆◆◆

1. Bogart is about ten miles west of Athens. The population of the incorporated village at recent census intervals was: 1940—379; 1950—459; 1960—403; 1970—667. The population of Athens at corresponding times was: 20,650; 28,180; 31,355; 44,342. (U.S. Department of Commerce, Bureau of the Census, Census of Population, Vol. 1, Part 12, Georgia, Table 8, pp. 12-20 to 12-23; and *Ibid.*, 1970, PC (1)-A 12, Georgia, Table 6, p. 12-11.)

The author acknowledges the help of Mrs. Edith F. Echols, in obtaining facts for this report.

BOOK REVIEW

EDUCATORS GUIDE TO FREE HEALTH, PHYSICAL EDUCATION, AND RECREATION MATERIALS. Randolph, Wisconsin: Educators Progress Service, Inc., 1972, 511 pp., \$9.00.

This is a fifth edition publication for use during the 1972-73 school year. It contains 804 new titles this year. A total of 1404 free films, 138 free filmstrips, 46 free slides, 35 free tapes, 25 free scripts, and 730 free printed materials are listed from 635 sources.

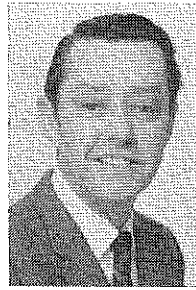
The free resource material is available in three major areas health, physical education, and recreation. In the area of Health, there are a number of subdivisions such as Accident Prevention and Safety; Career Opportunities In The Health Field; Diseases, Handicaps and Mental Health; First Aid; Food and Nutrition; Personal Health And Hygiene; Public Health, Sanitation, and Environmental Control; Sex Education and Family Living. In the area of Physical Education, the subjects covered are Individual and Dual Sports; Physical Fitness and General and Team Sports. And in the area of Recreation, Indoor and Outdoor Activities are covered.

Any teacher who is covering these subjects in the classroom should have a copy of this "Guide" available to them.

Paul R. Aldrich
Natural Resource Dept.
Dover High School
Dover, New Hampshire

The Williamsport Area Community College -

Joseph G. Sick, Chairman
Earth Science Department
The Williamsport Area
Community College
Williamsport, Pennsylvania



Joseph G. Sick

An unusual combination of programs is being articulated at The Earth Science Department at the Williamsport Area Community College. This includes the teaching of secondary as well as post-secondary programs with facilities available on an equal but separate basis. A new modern facility has been built and was occupied in February of 1972. The building is located on a 169 acre plot of ground nine miles from the main campus. Bus service is provided for students desiring transportation.

Through the cooperation of the Soil Conservation Service and the consultation of a hired landscape architect, the entire 169 acres has been laid out to insure complete utilization by the design of an outdoor conservation center. This plan has been designed to fit the teaching curriculums of all our disciplines being taught at this department.

The High School Programs

Three courses are offered:

1. Vocational Forestry, the most popular course, is offered with classroom and indoor laboratory facilities available. An outdoor laboratory consisting of 12,000 acres of softwood plantations and hardwood stands of timber is available as a result of an agreement with the College and the



Forest Technicians operating a rubber tired skidder and bucking pulpwood.

ARTICULATING SECONDARY AND POST-SECONDARY PROGRAMS

Williamsport Water Authority. Here the students get experience in most phases of timber management including harvesting, silvicultural practices, dendrology, and mensuration. This laboratory is located ten miles from our home base, and is used in addition to our forest woodland within a stone's throw of our classroom. Forest recreation, wildlife management and conservation are included in this program.

2. Vocational Agriculture is taught on a somewhat traditional basis with a well equipped modern shop and classroom. Approximately 15 acres of land is available to be used as an agriculture land laboratory where modern farming practices can be demonstrated with special emphasis on conservation.
3. The third course, Vocational Horticulture, is starting its third year. Part of a 35' x 84' greenhouse and attached headhouse is used for instruction in addition to a laboratory classroom designed for the teaching of specialized skills in this course. An unlimited amount of outdoor laboratory work is available and will be for several years while we are developing our facility.

The Two Year Post-High School Programs

Three programs are included in the college curriculum of the department. Forest Technology and Horticulture Technology are both associate degree programs.

Service and Operation of Heavy Equipment is a certificate program.

Forest Technology

Forest Technology is a two-year program of study in the applied phases of forestry. It includes sufficient general academic courses and specialized forestry courses to prepare the student to occupy a responsible position between the skilled forest worker and the professional forester. Basic forestry techniques and activities are taught the first year, the second year of work



High school forestry student sharpening a chain saw.

builds directly on this background. Field work is an important part of the course of instruction.

Employment Opportunities

Forest Technicians may be employed by the Federal Government, State Forestry Departments, lumber companies, private owners of timber land, and wood by-products industries. Interest in the course is tremendous; however, the market could be flooded with graduates. Our success has been good but it has taken hard work on the part of the students, faculty and placement service of the College.

Horticulture Technology

In Horticulture Technology the student may specialize in two curriculums.

The Floriculture curriculum consists of the production of flowers—indoors and out—and plans for decorative purposes, consequent grading, arranging, distributing and marketing are included in this program. The study of soils, plant propagation and plant pathology, woody and herbaceous plants, greenhouse crop production and horticulture mechanics are stressed. Floral design and flower shop operation as well as business psychology, marketing and economics are covered. Other courses directly related to Floriculture and others necessary to provide the student a good general education make this program an effective one.

In the Nursery Management curricu-

(Continued on top of next page)

lun the student specializes in such areas as nursery production, landscape surveying, woody and herbaceous plants, plant propagation, entomology, planting plans and horticulture mechanics. Again, courses in English, algebra, salesmanship, business psychology, sociology, etc., provide the student with a well-rounded general background to insure success in the field.

Job Opportunities

A survey conducted with the flower growers and nurserymen of Pennsylvania prior to the starting of the program indicated jobs were available for graduates providing that the program could turn out students with practical experience. Our first class will be grad-

(Anthony — from page 55)

uation" students discover an occupational goal.

A special committee of Agricultural Educators and Agricultural Engineers at The Pennsylvania State University has been charged to perform the following:

1. Survey each school district to determine the kinds of Agricultural Mechanics jobs in the area.
2. Write course material for short courses in Agricultural Mechanics which will include occupational information.
3. Plan facilities to teach the various courses.
4. Develop cooperative education

BOOK REVIEWS

FUNDAMENTALS OF SERVICE HYDRAULICS, by John Deere Service Publications, Department F, John Deere Road, Moline, Illinois 61265, Second edition, 1972, 172 pages, 276 illustrations, \$5.20 Softbound.

This book is devoted to oil hydraulics as it is commonly used to produce work on the farm or ranch and in industry. The text can be used by experienced mechanics, shop trainees and students in vocational technical schools and can be referred to as a reference in college level courses.

The theory of hydraulics is explained fully with excellent three and four colored illustrations. The revised copy contains expanded information on open and closed center systems, control valves, motors, hoses and fittings. Hydraulic circuit symbols as standardized by the "United States of America Standards Institute" are included.

The color slide set has been revised and expanded. 200 masters — \$60.00.

New transparency master sets are now available. 150 masters — \$15.00.

M. G. McCreight
Associate Professor
Agricultural Education
University of Nebraska — Lincoln

uated in the spring of 1973.

Service and Operation of Heavy Equipment

Service and Operation of Heavy Equipment, a certificate program, will prepare students to operate, service, and repair all types of construction machinery and become a specialist in one or two types. Welding and surveying basics are included in the program as well as complete coverage of mechanical safety measures.

Employment Opportunities

Types of jobs include operation, mechanical repair, and service of heavy equipment, as well as self-employment or work with contractors, dealers, lessors, miners, and quarriers. Job oppor-

programs with industry.

5. Promote the use of Agricultural Interest Inventories and the Bennett Mechanical Reasoning Aptitude Tests.
6. Make short video-tapes to describe the various jobs in Agricultural Engineering for all educational levels.

In summary, if career education is to be a new emphasis in our educational system, each of us should ask ourselves what contributions can we make from the standpoint of contributing occupational information in the field of Agricultural Engineering. There are many job opportunities in the field of Agricultural Engineering, and it is up



Horticulture Technology students arranging flowers.

tunities offer unlimited advancement with top pay governed only by the student's ability, interest, and ambition.

to us to make those opportunities known to the students. ◆◆◆

1. Reports I, II, III, IV, *Agricultural Engineering Phases of Teacher Education in Agriculture*, The American Society of Agricultural Engineers, St. Joseph, Michigan, 1968.
2. Vocational Education Statistics, *Reports and Data Section of the Division of Vocational and Technical Education*, U.S. Office of Education, Washington D.C., 1971.
3. Maeroff, Gene I., *Education Chief Urges More Career Training*, New York Times, August 8, 1971.
4. Shontz, David, *An Experiment in Teaching Agricultural Occupations Information To High School Students*, Thesis D.Ed 1963, The Pennsylvania State University, 102p, Department of Agricultural Education, The Pennsylvania State University, University Park, Pennsylvania. *Paper No. 72-571, Implications of Career Education for Agricultural Mechanics Instruction, by Dr. Frank Anthony, Associate Professor, Agricultural Education Department, The Pennsylvania State University, University Park, Pennsylvania. For Presentation at the 1972 Annual Meeting, American Society of Agricultural Engineers, Conrad Hilton, Chicago, Illinois, December 14, 1972.

LAND SPECULATION: AN EVALUATION AND ANALYSIS, by Harold L. Oppenheimer. Danville, Illinois: Interstate Printers and Publishers, Inc., 1972, 439 pp. \$9.95.

As the author notes, "Land is the only commodity of which there is only so much on the earth's surface. It can't be overproduced in a factory or floated in a new stock issue." He concludes that productive agricultural land is one of the best long-range investments on the market if it meets certain requirements with respect to size, availability of water, and location.

The author attempts to set forth in a realistic manner the various considerations involved in land speculation. The following major topics are covered: background and political history of matters affecting land; operations and management of land including the evaluation of management; rural and urban land transactions with a comparative analysis of urban vs. rural real estate; land classification for development and marketing; new public land policy, land development, and a biographical analysis of tax laws. Although the examples given typically deal with western land, the book should be useful throughout the country.

Brigadier General Harold L. Oppenheimer, a veteran of 32 years active and reserve service in the U. S. Marine Corps, is Chairman of the Board of Oppenheimer Industries, Inc., the largest ranch management and consulting firm in the United States. Headquartered in Kansas City, the firm has been involved as manager, broker, consultant, or leasing agent with over 8,000,000 acres of farms and ranches over the last two years. As a broker, it has been active in the urban real-estate market in several states. General Oppenheimer is also the author of books dealing with the cattle industry from an investors standpoint, ranch operations, and legal problems in land and livestock ownership.

Although LAND SPECULATION is directed largely toward the prospective purchaser of farm or ranch lands, it should be helpful to anyone investing in real estate. The book will be very useful as a reference for teachers and students of agriculture in high schools, junior and senior colleges and universities, professional agricultural workers and others with similar interests.

J. Dale Oliver
Associate Professor
College of Education
Virginia Polytechnic
Institute and State University

VOCATIONAL—TECHNICAL EDUCATION: Quality Input To University Education

Gilbert A. Long, Head
Department of Agricultural Education

Utah State University

Kleon Klotter
Agricultural Information Specialist

Because of a policy of accepting a broad range of students, vocational programs serve to meet the otherwise unfulfilled needs of those students who wish to prepare for vocations requiring less-than-baccalaureate degrees as well as to share some of the broadening effects of university life.

Vocational programs have provided a valuable alternative for university students. At Utah State University those students who have chosen to participate in vocational programs have increased their employment opportunities appreciably. Analysis of follow-up surveys indicates that at least sixty percent of the graduates of these programs are employed in the same or related field.

Vocational programs have provided a valuable alternative for university students.

It has been interesting to note the interest in vocational programs expressed by university students at different stages of completion of baccalaureate programs. In many cases the vocational program is seen to provide the necessary skills to support a management degree. A junior completed her degree in botany while taking time to complete the one-year Ornamental Horticulture Services Program, for example. She was employed to teach hard of hearing in Florida. She participated in planning and equipping a greenhouse that would be her particular teaching laboratory for these students. The wide majority

of student participants in these vocational programs enter and advance within the associated industry.

Vocational Programs

Each of the vocational programs consist of a group of courses specifically designed to prepare for employment. Basic skill development appropriate to industry requirements is a scheduled part of the preparation program. Remedial skill development is provided on an individual or small group basis by resource personnel supported by vocational setaside funds.

The program concept emphasizes job-entry preparation. A great majority of each student's day is devoted to this purpose. The total length of each program is determined by the instructional time necessary to prepare for the level of proficiency required by the industry trained for. Industry personnel have been used to plan, initiate and refine each program. Industry satisfaction with these university programs is evidenced by their ready employment of the graduates.

A Cooperative Effort Increases Quality and Insures Industry Penetration

The agricultural machinery technology program includes a supervised occupational experience program following two quarters on campus. A second year completes this two-year program. The planned occupational experience extends through the spring and summer of the first year. The provision of this additional help provided during the machinery dealers busy season provides an additional incentive

found in this publication is directed toward the production of work on the farm or ranch and in industry. The purpose of this publication is to train a person so he can understand and service engines with speed and skill. "How engines work," "how they fail" and "what to do about it" are very well illustrated in the book with an adequate number of illustrations of pictures, drawings, and cutaway views. Color is used extensively to clarify drawing. The text is designed for high school and post-high school courses in power mechanics.

Three types of internal combustion engines are covered in the book: Gasoline,

Industry satisfaction with these university programs is evidenced by their ready employment of the graduates.

for the industry to cooperate in the program.

The Ornamental Horticultural Services Program is a one-year program that includes a supervised occupational experience in an assortment of alternative areas. The student experiences as many as five two-week placements.

The one-year Meat Cutting and Processing program concludes with a ten week occupational experience program split equally between two meat industry and/or food distribution establishments. This three-quarter sequence may be started in either the fall or spring.

The supervised occupational experience insures that each student receives full credit for his skills, attitude, and commitment. Here, the student is given a valuable opportunity to demonstrate his ability and willingness to contribute to the success of a business as a part of the team in the "real world" of life and work. The kind of two-way commitment and involvement that results from this experience is important and almost impossible to simulate. In fact, in this writer's mind, attempting to operate post-secondary vocational programs that do not include a planned supervised occupational experience is very questionable. ♦♦

LP-Gas and Diesel. Other areas covered are: Basic engine theory, engine design, fuel systems for each type of engine, intake and exhaust systems, and lubrication, cooling and governing systems, test equipment and service tools, diagnosis and testing and engine tune up.

This is a well written and illustrated book for anyone who wishes to know how an engine and its component parts work, why it fails, and how to repair it.

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Associate Professor
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NEEDED—A NEW DESIGN FOR STATE-LEVEL LEADERSHIP

Charles J. Law, Jr., State Director
Division of Vocational Education
North Carolina

Introduction



C. J. Law, Jr.

Probably the most often heard charge directed at state departments of education in recent years has been "the Division of Vocational Education, and most specifically the Vocational Agriculture Section, tries to dictate local programs from the State level." As one very well-informed friend of mine recently stated, "It makes no difference whether this kind of statement is true or not; if those who say it believe it to be true, it is just as bad." To me, this means that quite often overtures made by State leadership in Vocational Agriculture are misinterpreted by administrators at the local level, and not only is the impact lost but in addition negative feelings begin to build and thus inhibit future relationships which would be profitable.

Evolution of the Problem

If one were to look historically at the reasons behind such feelings, I think it could be found that due to Smith-Hughes legislation there has been a much larger staff in vocational education in state departments than for academic areas. In addition, the individuals who staff these slots, for the most part, have been both highly qualified and quite often vocal in their support for improvement of vocational education. Perhaps if the same aggressive demand for improvement had existed over the years in the areas of math, science, etc., the push by state-level people in vocational education would have seemed to be more normal. In the absence of such partnership in leadership, one could only expect the aggressiveness of vocational people to be noticed and also, to a degree, resented. In the late 1950's, the resentment and beliefs of local individuals that vocational agriculture teachers worked for district supervisors, and

thus for the state office and not for principals and superintendents, seemed to be prevalent in most states.

The only authority which seems appropriate for state leadership, and for vocational education, to exercise is the authority of expertise.

At that time, under wise leadership, a real move was made in North Carolina to become a more supportive resource than a regulatory agency. Tragically, as one views the situation today, this move evidently came with too little impact too late. As a result, the State Division of Vocational Education has found itself over the past four years searching for a new role that could truly be interpreted in every aspect as being one of leadership, but leadership given in a flexible manner. No longer, and perhaps rightly so, was the authority of budget allowed to dictate local programs from the State office. In the desire to remain in a flexible leadership role, many ideas have been attempted and many rejected. The twin masters of "leadership" and "flexibility" must be served. With this in mind, the only authority which seems appropriate for state leadership, and indeed in vocational education, to exercise at the state level now appears to be the authority of our expertise. The undergirding philosophy supporting this approach can be enumerated in the following points:

1. State leadership in vocational agriculture and vocational education has been staffed by individuals who were chosen on the basis of their having been good teachers.
2. If leadership is to be exerted in the field of curriculum and teaching from the state office, then it follows that those who exert the leadership must exemplify these same characteristics of being good

teachers.

3. It is becoming apparent that if flexibility and creativity are going to exist in the vocational classrooms, then it will be for one of two reasons: One, because state leadership encourages and practices this same flexibility and creativity, or two, in spite of state-level leadership which operates in the opposite manner.

In short, it is impossible for state leadership to dictate that there will be flexibility in the classroom.

There are many teachers of vocational agriculture across this Nation who proudly display on their walls the certificate entitled "Teacher of Teachers." If a state agency is to be productive in its leadership in vocational education, then each individual exerting such leadership must play the self-same role of "teacher of teachers." The only possible impact a state director of vocational education can have on what happens in the classroom is to exemplify in his every relationship with others (especially his immediate staff) the kind of relationship he wishes to exist in the classroom and then ask each one to do the same in their relationships. Perhaps it is best said through the old adage, "Each one teach one."

The conclusions which I have drawn are neither new nor dramatic. They do invoke some rather startling changes in the ways in which we operate if we choose to move in this direction. It is much easier to write memorandums, hold conferences, obtain new budget support, than it is to play the role of teaching effectively. I am reminded so very vividly of the statement made by Ralph Waldo Emerson when he said, "Do not say things. What you are stands over you the while, and thunders so that I cannot hear what you say to the contrary."

I hope for the day when I and others at the state level in vocational education really begin to live this credo. ♦

1. Ralph Waldo Emerson, "Letters and Social Aims," Familiar Quotations, ed. John Bartlett (Boston: Little, Brown & Co., 1955), 508.

BOOK REVIEW

FUNDAMENTALS OF SERVICE — ENGINES, by John Deere Service Publications, Department F, John Deere Road, Moline, Illinois 61265. Second edition, 1972. 300 pages, 496 illustrations. \$6.80 Softbound.

This basic text has been expanded and updated to reflect new systems and development in power mechanics.

The prime application of "Engines" as

UNESCO In Agricultural Education

R. J. Agan, Professor
Coordinator of Vocational Education
Sam Houston State University
Huntsville, Texas



R. J. Agan

Agricultural Education programs are much in the forefront of the worldwide developmental emphasis sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO). The director for the Division of Agricultural Education and Science is a dynamic Peruvian by the name of Doctor G. Edward Nicholson (known affectionally as "Ted" by his friends) who grew up in the small village of Catacaos, and completed most of his post-elementary school work in England. He lived, studied and worked for a time in Cali-



In Paipa, Columbia, one of the Technical Institutes of Agriculture developed under a contract with UNESCO, features the dignity of work as applied with good agricultural practice.

fornia where he met his charming wife who is the lovely hostess for the many "at-home sessions" provided by the executive Nicholson for his guests and distinguished associates with whom he works around the world. The Division of Education for Agricultural and Rural Development is a component of Unesco's Education Sector, included in the Department of Curriculum, Structures and Methods of Education headed

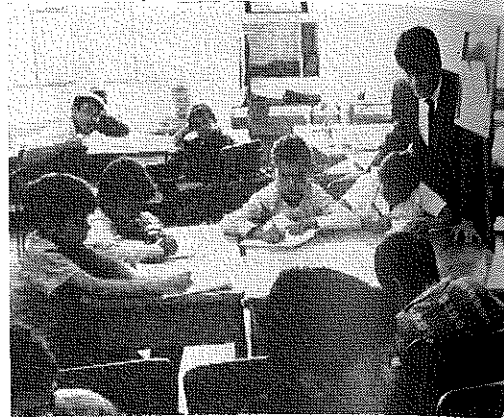
UNESCO, through member countries, is stimulating implementation of vocational education in agriculture at several levels.

by Mr. Jean Knapp, who reports to the Director-General through the Assistant Director-General for Education, Mr. Ahmadou M. M'Bow.

Training courses and pilot projects in Agricultural Education for UNESCO member countries which have their origin in the Paris office of UNESCO include refresher courses lasting from one to two months, presenting the most recent advances in pedagogy; one to six weeks agricultural teacher-training courses; seminars on planning in agricultural education including rural development programs, primary, middle school and secondary programs, as well as university level undergraduate and graduate programs; the provision of expert services to developmental projects in Agricultural Education; study missions to determine dimensions and possible solutions to identified problems; and other techniques to meet the needs as presented to UNESCO by the member country's government. Fellowships for special study are also granted to member Governments for use in solving deficiencies identified in programs of Agricultural Education.

Technical symposia and meetings on problems in rural education as delineated by member State governments are organized and held with published evaluations of these activities also, results of the evolving studies and research activities are printed and evaluated.

UNESCO cooperates with many other agencies within the United Nations family in order to accomplish needed goals in the most efficient and economical manner. There is a Joint Advisory Committee (JAC) which provides suggestions from agricultural educators around the world for inter-agency collaboration in agricultural



In Pamplona, Columbia, there is an Institute of Rural Education which has been made possible by the support of UNESCO.

education between UNESCO, the Food and Agricultural Organization (FAO, Rome) and the International Labor Organization (ILO, Geneva). One highlight of the three agency cooperation manifested itself in the 1970 FAO/UNESCO/ILO World Conference in Agricultural Education and training. There is also an FAO/UNESCO/ILO Inter-Secretarial Working Group (ISWG) which dedicates itself to serving as the operational body for coordination and joint action for all inter-agency activities in agricultural education and training. The ISWG is primarily an action oriented inter-agency body while the JAC is an advisory body bringing experience and knowledge from outside specialists.

One example of an activity made possible by the cooperation of these three agencies is the International course on *Vocational Education and Teaching in Agriculture* held each two years at the International Center for Agricultural Studies in Berne Switzerland. The five week course, translated simultaneously in three languages, brings together world wide representation, discussion and planning related to pertinent issues concerning Agricultural Education around the world. The Ninth such course sponsored by the United efforts of the three United Na-

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POST-HIGH SCHOOL EXPERIENCES OF LOUISIANA'S COOPERATIVE VOCATIONAL EDUCATION PARTICIPANTS

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L. D. Lawrence

The past ten years have seen a great many changes in vocational education programs and philosophy, primarily due to liberalizing effects of federal legislation. Among these changes has been the increased attention given to programs involving cooperative efforts of school and community in preparing youth for the world of work. Because of the impressive achievement record of cooperative vocational education programs, the 1968 Amendments to the Vocational Education Act of 1963 earmarked funds specifically to encourage further expansion and improvement. As a result, cooperative programs are now offered in all areas of vocational education.

The high school should accept greater responsibility for guiding students into appropriate career decisions.

A recent study attempted to analyze employment and educational experiences of Louisiana high school graduates who had participated in cooperative programs, as a basis for evaluation and subsequent improvement of those programs to more effectively meet student needs. Information was obtained by questionnaire from 1,207 agricultural, distributive, home economics, and office education participants one year after high school graduation. A random sample of non-respondents interviewed by telephone verified validity of data received.

Summary

Cooperative vocational education participants achieved as well or better than other graduates in their schools, with 56.5 percent in the upper half of their graduating classes. Approximately

three-fourths of the home economics and office trainees were in the upper two quartiles of their classes, whereas only one-third of the agricultural and nearly one-half of the distributive participants were in that category. (Academic information was obtained from high school principals.)

More than 52 percent of the respondents were employed full time a year after high school graduation. Another 13 percent were employed part time; 8 percent were housewives not otherwise employed; 5.7 percent were in military service; and 4.9 percent were unemployed. Slightly more than 30 percent of the respondents were attending some type of post-high school institution. (Of agricultural respondents, 89.5 percent were employed full time, 2.6 percent were unemployed.) At the time of this study, 5.9 percent of the nation's labor force were unemployed, with 15.8 percent unemployment among youth in the 18 and 19 year age group.

Over 68 percent of the employed respondents had obtained their first fulltime jobs within one month after high school graduation. By the end of summer, nearly 80 percent were employed. Very little correlation was noted between elapsed time from graduation to first full-time job and the participant's academic performance in high school.

Percentages of graduates employed in their occupational training fields ranged as follows: agriculture, 21.2 percent; home economics, 44.5 percent; distributive, 48.7 percent; and office, 89.9 percent. Most cases of occupational switching by agricultural trainees involved utilization of agricultural mechanics knowledge and skills in trade and industrial jobs.

Nearly two-thirds of the employed respondents had remained with a single employer during the first year out of high school. An additional 29 percent had held two jobs, and only 5.1 percent had held more than two jobs during

Locating suitable job openings was rated the problem area of greatest difficulty since graduation by respondents of all programs.

the year. The major reason given for leaving the first job was that a better job had been found.

Salaries received by agricultural and distributive respondents were significantly higher than those received by home economics and office respondents. Males received significantly higher weekly salaries than females. The relationship between weekly salary and academic performance in high school was negligible.

Vocational teachers were credited with assistance in locating the first job after high school graduation by 41.4 percent of the respondents. Approximately one-fourth were assisted by friends or relatives; another one-fourth located their jobs by direct application to the business or firm. Only 1.4 percent were assisted by school guidance counselors.

Nearly 84 percent of the respondents were working in their home towns or communities, with 96.2 percent employed within 50 miles of their home towns.

"Locating suitable job openings" was rated the problem area of greatest difficulty since graduation by respondents of all programs. Other major problems included "basic job skills and techniques," "business English usage," "job interviews," and "preparing reports."

Of all respondents, 30.6 percent were attending some type of post-high school institution. More than half of these were enrolled in curricula related to their high school vocational training programs, and nearly half were employed on a full-time or part-time basis while in school. Only 10.6 percent of the agricultural participants were enrolled in post-high school institutions.

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tions Agencies is scheduled for August and September of 1974.

UNESCO's cooperation activities also link with such agencies as the Inter-American Institute of Agricultural Sciences (IICA), the Organization of American States (OAS), the World Bank, the United Nations Development Programme (UNDP), and others.

Future UNESCO program plans for Agricultural Education call for even greater emphasis in the field. The Director-General of UNESCO has decided to create a new Division of Education for Rural Development which will embrace all the former activities of the Division of Agricultural Education and Science and also broaden the scope of the programs to the whole field of the orientation of education to rural development. Two separate, though closely related, directions are anticipated, (1) the regeneration of the entire system of school and out-of-school education in the rural environments, and (2) the development and improvement of all Agricultural Education programs. This will involve Agricultural Education much more with the rural orientation of primary and secondary curricula and teacher training activities. This is anticipated to give world wide education much of the *Career Education* flavor currently taking place in the schools of the United States. This move also demands even closer collaboration with FAO, ILO and other UNESCO agencies than formerly in rural developmental programs.

With a view of clearly defining the interdependence of education for rural development, economic development, and social development, and the role of the national systems of education, comparative surveys and research studies will be conducted in the member States. The studies will give special emphasis to the investigation of the effect on agricultural education of rural society reforms, especially on the relationship between agrarian reform and the impact of scientific and technological development as it drifts into and is assimilated by the towns. Likewise, research will be conducted to measure the impact of different aspects of agricultural education for rural development in relation to community environment.

Pilot projects will be sponsored in UNESCO member States who wish to prepare and carry out experiments in rural education. An example would be

the combining of school activities, rural extension work, and activities for the advancement of rural society into an integrated educational action bringing together in a pattern of cooperation at least three ministries in the member participating country. Problems of illiteracy and inadequate levels of school instruction constituting major obstacles to the control of malnutrition and population growth are also to be given special attention on a continuing basis.

In addition to the study of rural developmental problems and the content of rural education, plans are underway for the sponsoring of polyvalent educational centers, particularly for agricultural workers and women. Also practical ways will be sought to assist member States in their desire to associate young people with rural development activities.

Professionalism among the teachers of agriculture around the world is one of the goals of UNESCO. Steps will be taken to promote and improve the organization of professional associations of rural teachers and those teaching agriculture, encouraging through such organization the exchange of information and experience among existing organizations.

The six year action of emphasis on developing programs of education for rural development will climax by a review which will be made during the 1975-1976 biennium. The review will measure the outcomes of the plan to promote the regeneration and the adaptation of education for rural development. With the completion of such a review and analysis, a second world conference on education and rural development is being planned to be held in 1976. ◆◆◆

(Lawrence — from page 63)

Respondents held favorable opinions of their high school vocational training, with 87.8 percent indicating that they were well prepared or exceptionally well prepared for their jobs.

In their comments and suggestions, respondents of all programs generally agreed that the school should provide more assistance in job placement of graduates; that more individualized instruction should be given in school pertaining to the trainee's particular job; and that a need exists for a wider selection of vocational courses in high school, particularly in trade and industrial education.

Implications

Research procedures applied in this study provided useful data upon which to suggest further improvement of cooperative vocational education programs:

1. Related instruction should be planned around individual jobs and needs of students. Each job area should be analyzed to determine related instruction needs for most efficient development of occupational competence.

2. Efforts should be made to include greater numbers of the less academically talented students in cooperative programs, particularly by home economics and office education coordinators.

3. The high school should assume greater responsibility for guiding students into appropriate career decisions, training them to the extent possible, and placing them in suitable entry-level jobs. These functions should receive the same attention as academic guidance.

4. Additional effort should be made in teaching job location skills, including sources of occupational information, completion of job applications, and conduct in job interviews.

5. Broad programs in trade and industrial education should be initiated in many high schools. The cooperative plan of instruction could enable secondary schools to offer training in a wide range of occupations for which school laboratory instruction cannot be provided due to expense or complexity of equipment or to small numbers of students interested in specific trades. ◆

Wilbur Ball On Overseas Assignment

Wilbur P. Ball, Professor of International Agriculture and Education at California State University, Fresno, was on three-month assignment in the South Pacific, New Guinea, Australia and New Zealand from June through August, 1973. He studied tropical and semi-tropical agriculture as it relates to the instructional program in international agriculture at the University.

Ball has six years' experience abroad, four of which have been with U.S. A.I.D. in the Philippines and the Sudan. He is presently chairman of the International Programs Committee for the National Association of College Teachers of Agriculture.

A PRIMER FOR ORGANIZING AND OPERATING POST-SECONDARY AG STUDENT CLUBS

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M. J. Iverson

All of us have a real need to belong, to be a part of something we feel is worthwhile. Whether it be a church, an athletic event, a class or a social club—the desire to participate is a normal human response.

The focus of this article is on agricultural student clubs at community colleges, junior colleges, technical institutes and other institutions offering post-high school, but less-than-Bachelor degree programs. It is an outgrowth of a national study¹ undertaken to learn more about such clubs and to devise a list of suggestions for developing such groups in other schools.

During the study it was learned that more than two-thirds of all such institutions had existing student agricultural clubs. The contents of this article are based upon conclusions drawn from these facts. The major guidelines from which this article was written were approved by a representative panel of directors of agricultural programs at institutions having post-secondary agricultural clubs. The following ideas and experiences are aimed at benefiting those who may have already initiated or are considering starting such a group in their post-secondary program.

The Guidelines

DECIDING THE ROLE OF YOUR CLUB

In deciding just what place your club should have in the school, you must examine the total picture. Schools' goals and past experiences with clubs, plus the attitude of teachers, administrators, students, and members of the community, all have a bearing on your organization.

Seek a unique function for your group—one no other club is accomplishing. Make the club of, by and for students, extra-curricula (operating mostly outside of school time), but recognized and regulated by institutional policies. Try to build in flexibility so that you can change the club as students or programs change. One way to insure this flexibility is to continuously plan and evaluate the function of the group.

HOW TO ORGANIZE YOUR GROUP

Industry usually has a "feasibility" study made to determine alternatives before a project is started. You can do the same by involving all interested parties—students, instructors, administrators, and community members. Deliberations by this group might include:

- Experiences of similar student clubs in high schools and/or other colleges;
- Projected enrollment for the department and school (stability or moderate growth is desirable);
- Expressed need and willingness of students to support the club (a nucleus of 10 students, with a commitment to join from 80 per cent of those who are enrolled, will help insure success);
- Approval and willingness of agricultural faculty and the department chairman to assist the group;
- Suitability of the group's purpose to the institution's program or policies governing student clubs;
- Potential competition with existing groups;
- Financial constraints.

Once the decision to organize has been made, set up a temporary, interim council to lay the groundwork for the group. They can do much work in tentatively developing aspects of the constitution (name, objectives, membership requirements, officers, affiliation) and such details as securing a sponsor and finances and developing an activities list, and a schedule for meetings. Items should be finalized by the members after securing inputs from the original feasibility study group. Normally, this procedure will guarantee formal recognition from the institution. Such operational aspects as by-laws, club literature, codes of ethics or ideals, committees, ceremonies (if any), provision for officer election and training, and securing supplies, equipment and insignia can be determined during the course of the first year's operation.

DEVELOPING OBJECTIVES FOR YOUR CLUB

Organizations often run into trouble with objectives, thus it is important to carefully decide what the *real* purposes of the group should be, and then to list these objectives in realistic, clearly-stated, *performance* terms. The objectives should be reviewed and refined annually by the total membership. The major, over-all goal should be to serve the needs of the student-members; however, many clubs will indicate a number of purposes, including:

- To develop leadership.
- To provide social and recreational activities.
- To aid in orienting students to the school and agricultural program.
- To secure recognition for students and programs.
- To supplement and reinforce the objectives of the educational program.
- To motivate student learning and achievement.
- To foster community service.
- To encourage students to participate in industry-related groups.
- To serve as a liaison between students and the administration.

WHAT ABOUT THE CLUB'S NAME?

Names have a habit of sticking, and moreover, of conjuring up images in the minds of listeners. You should, therefore, select a name which reflects: member characteristics (these are young adults!), club purpose(s), nature of the agricultural program, and the collegiate level of education. If possible, try to choose a name which will cover future changes in these areas. (You will note the problem the FFA has in recording its image to the new off-farm, agribusiness emphasis in vocational agriculture.) Some names used by clubs around the United States are as follows:

- Agriculture Club (or Society)
- Agri-Business Club (or Association or Corporation)
- Agriculture Transfer Club
- Ag. Equip. Technology (Alpha Epsilon Tau)
- Agricultural Marketing Society (Alpha Mu Sigma)
- Agricultural Production Club
- Ag. Banking Club
- Collegiate Agricultural Leaders (or Association)
- Cattle Club (Collegiate FFA)
- Desert Ranchers (Conservation Club)
- Farm and Ranch Management Club
- Forest Technology Club (or Forestry Club)
- Horse Club

(Concluded on next page)

Landscape Tech. Club of _____
 Ornamental Horticulture Society of _____
 Plant Science Society
 Pollution Abatement Club
 Rodeo and Riding Club
 Student Technicians of Veterinary Medicine
 Student Marine Fisheries Association
 Young Farmers and Ranchers Educational Association
 Young Agriculturalists of Tomorrow
 Greek letter names (standing for the initials of the ag program, etc.)

You will note "agriculture" was a part of most names; however, if the total membership has the final decision in determining the name, you won't go wrong.

SECURING MEMBERSHIP AND PARTICIPATION

Every student enrolled in agriculture should have the opportunity to join an organization, regardless of sex, race, religion or creed. This does not preclude establishment of specific membership requirements in an ag club, but it does provide a basis for determining the criteria for membership. Some common criteria you might adopt in order to secure full participation of students are as follows: let joining and participation be voluntary; stress improvement of members, not selection of the elite; provide for immediate entry of new members into active status in the group; keep scholastic or other restrictions on participation to a minimum; determine responsibilities of membership by a vote of the group, and emphasize these responsibilities when recruiting new students; guarantee members' rights and freedom by making provisions for due process in the club's policies.

WHO SHOULD LEAD THE CLUB?

A look at the club's objectives would indicate that students, acting as officers and committee chairman (with assistance from a qualified advisor), should provide leadership to the organization. Some procedures utilized by successful clubs are as follows: elect a standard set of officers (president, vice president, secretary, treasurer) annually and provide training for the job; for continuity, elect assistant officers; utilize standard and special committees to carry out various club functions; hold regular executive meetings to plan the program; and select an advisor who is interested and qualified to serve. Normally, a member of the agriculture faculty who is sincerely interested in the organization is the best person to serve as advisor. Ideally, the institution will compensate this person through released time or extra pay (or a combination of the two) so that he can become "geared up" as advisor and provide the kind of supportive, yet nondirective assistance needed by the members of the club. Members should protect the advisor from excess legal liability when planning group functions.

DETERMINING ORGANIZATIONAL LEVELS

A wide variation exists in local organizational patterns of clubs for post-secondary agriculture students. In determining your local design, consideration should be given the following types: the department-wide organization; the club associated with a specific program within the department; the special interest sub-group within a larger club unit (e.g., agrichemicals club within an agri-business club), and the club based in agriculture but including students from outside the department (e.g., riding club, rodeo club, nature-study group, etc.). There are advantages to decentralized as well as centralized groups, locally. The pattern adopted should be decided on the basis of mutual interests of participants. The same can be said for state and national organizations; when sufficient growth and interest has occurred locally, representatives should meet in conferences to determine the feasibility of coordinated effort through a

statewide and/or national organization. The confederation model, assuring local autonomy, appears to be the pattern accepted by those states organizing such groups.

COORDINATION WITH OTHER GROUPS

Much can be gained through cooperation with other agencies and organizations in agriculture. A post-secondary agricultural student club should initiate and encourage relations with other youth groups and adult organizations—including those from business, industry and government—while retaining its independent status. Formal affiliation with other groups should be restricted to similar agricultural student clubs at other post-secondary institutions. The club should also seek representation in local student government.

DETERMINING THE CLUB'S ACTIVITIES

An organization's activities should reflect the needs, characteristics and objectives of the group served. At the post-secondary level, there is a great need for experience in cooperation. Your club can meet this need by planning an annual schedule of activities including cooperative as well as competitive functions for members. Numbers and types of activities should be geared to the desires and experiences of your members, and the actual planning and execution of activities should be done by the members. Some activities carried out by successful clubs are: regular meetings dealing with relevant problems; meetings conducted according to parliamentary law with limited ritual except as needed to give dignity to special occasions and add recognition to members and/or club functions; state conferences emphasizing new experiences, idea exchanges, contacts with potential employers, recognition banquets; and tours aimed at increasing member knowledge of an aspect of agriculture.

FINANCING THE CLUB

Adequate finances are necessary for the success of any group. Strive to give your club a broadly based income from: 1) a professional-level dues structure (perhaps up to \$5 per month); 2) educationally sound fund-raising activities; 3) support from the school (many clubs receive money from the student activity fees charged by the institution; and 4) gifts from supporters. All money taken in must be accounted for; therefore, a record system based on accepted accounting standards should be adopted. Sufficient income should be secured to support the objectives of the group with adequate reserves to cover any emergencies. A large portion of any club's expenditures should directly and visibly benefit its members. Lunches, transportation, and housing on tours, insignia for jacket, awards and scholarships are examples of such direct benefits.

Conclusions

In order to secure widespread application, leadership must be provided by agricultural personnel at local, state and national levels to assist post-secondary students in the development of desirable organizations. Publications and conferences are needed to explore means and techniques for organizing and operating effective student clubs. The national seminar for agricultural leaders in post-secondary institutions, scheduled for October 1-4, 1973, in Minneapolis, is a step in the right direction.

Student organizations in post-secondary agriculture are a reality. Let's use our experience with organizations at other levels to help students organize clubs which serve this special need. The potential exists to create innovative and truly functional organizations—will we grasp the opportunity? ♦

1. Maynard J. Iverson. "Guidelines for the Development of Student Organizations Associated with Two-Year, Post-Secondary Educational Programs in Agriculture in the United States." Unpublished Ph.D. Dissertation. Columbus, Ohio: The Ohio State University, 1971.

CAREER AWARENESS IN THE ELEMENTARY SCHOOL



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Too often young people pursue a career by chance rather than by assessing their abilities and interests and the opportunities available to them. In the past children saw their parents and adults at work and often worked with them. These experiences gave the children an opportunity to develop skills and understandings of the world of work around them. Today's youth do not have the same opportunity to develop their knowledge of the world of work.

Educators have become aware that more appropriate curriculums must be developed, validated, installed, and used realistically if students are to be informed and prepared for the world of work. Children need to have an educational program which integrates learning and doing. They need a program which merges their worlds of the school and the home with those of the community and the workplace into a challenging and productive unit. Career education meets these needs.

Children need an educational program that integrates learning and doing, merging into the world of work.

Career education is not adding another course to the already overcrowded curriculum, rather it is the integrating of all the educational experiences to help students develop an appreciation for work and prepare for economic independence. Learning effective job skills while giving meaning and relevance to otherwise abstract academic subject matter must become a part of the curriculum.

Career education must begin as an integral part of the educational pro-

gram in the early school years. Children must not only learn about social institutions, but also institutions which provide them with goods and services which will be their source of economic self-sufficiency for the large part of their productive lives.

Children in kindergarten through sixth grade should be exposed to the world of work under the "career awareness" or orientation phase of career education. The objective of this phase should be to help all students become familiar with the careers which are available and the values of the work oriented society. They should acquire an appreciation for work and for the dignity of both mental and physical labor. Children are able to broaden their understanding of the work world as they observe, discuss, and read concerning the conditions of work and the contributions of many people in an ever increasing number of jobs.

Children will still learn how to read, write, and compute as they did under the "traditional" program. The students can still study history, languages, and the physical and social sciences. However, integrated into these studies will be the opportunity to explore the world of work.

The U.S. Office of Education divided the world of work into fifteen occupational clusters for study in career education. Children as they progress from kindergarten through the sixth grade should have the opportunity to become aware of the many careers available in each of the clusters and how these careers are related to them and society.

How can career education be implemented into the elementary schools? Implementation must begin by changing two misconceptions. Many of the



Books in a learning center give elementary children the opportunity to read about the many and varied occupations.

personnel in the elementary schools consider career education just another name for vocational education, thus it is only for the vocationally oriented students in junior or senior high school. These same persons have a serious misconception of agricultural education. Too many of them consider agriculture to be farming; the numbers of farms and farmers are declining; therefore, students should not consider agriculture as a career.

The second step in implementation is orienting the elementary personnel to the many possibilities of career education for the elementary classroom. As previously mentioned, a move to career education is not adding another subject in the already crowded school day, but rather it would be changing the emphasis of the present subjects to better meet the needs of the children.

Leadership for implementing career education should come from within a school system. All school personnel need to participate in planning for the integration of career education into the elementary schools. It would seem to be

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Ullin, Illinois



L. R. Hilterbrand

A different approach to the teaching of agriculture in our colleges is needed today. The word agriculture still means to many people that "agriculture is farming." In order to put education in its proper perspective we are beginning to incorporate other programs in our agriculture college curriculum.

Some very important questions need to be answered about the programs in agriculture today.

1. How do innovative programs differ from the regular or conventional programs being offered?
2. What programs should be tried in the community college and how should they be implemented?
3. Where can we find teachers of agriculture with the proper experience and education for community college teaching?

The above questions were considered as the educational philosophy of our college was planned. A brief history of the agriculture program at Shawnee College will explain the concept of education and how it has grown.

In 1969, when the college was formed, our administration accepted the need to emphasize agriculture, since it was the predominant occupation in Southern Illinois. Also, that we should include all the facets of agriculture, not just production agriculture, and emphasize programs that meet the needs of the people engaged in agriculture or that have an interest in it that live in the area. As it has grown, a broad-based program has naturally evolved with pivotal courses which provide a basis for our agriculture program.

The terms we use with this broad-based program are not new, but when the program is implemented it will meet the needs and interests of all the students. We feel that the students should be well grounded in such courses as soils, conservation of our natural resources and plant science. As an example we cannot continue to grow great quantities of food in this country unless we stop mining our soil, reduce erosion and curtail pollution.

We offer five programs in agricul-

PLANNING FOR AGRICULTURE PROGRAMS IN COMMUNITY COLLEGES

ture. A brief explanation of each is presented.

AGRICULTURAL RESOURCES — We prepare students for a wide variety of occupations in this program relative to the care and maintenance of natural resources. Our students are encouraged to take a broad view of our natural resources and to make practical application of this knowledge.

AGRICULTURAL PRODUCTION — In this program the student learns the basic knowledge required to grow, manage, and sell animal and plant products successfully. We use the surrounding area to provide the many experiences that are necessary for success in farming today.

AGRICULTURAL SALES AND SERVICE — This program is expanding rapidly in our area. It is designed to prepare students for such jobs as elevator operators, feed, seed, fertilizer, and chemical salesmen and others. Emphasis is placed upon preparing the student to know how to move food from the farm to the consumer.

OUTDOOR RECREATION AND PARK MANAGEMENT — The student in this program is given the many experiences that are necessary to learn the basic techniques of outdoor recreation, nature interpretation, management of parks and memorials, etc. This rapidly expanding program is attracting many students who are interested in working with people in outdoor settings.

PRE-AGRICULTURE — We strive to give the student the academic background necessary to succeed in the four-year college. It offers the student the first two years of study toward a baccalaureate degree.

A placement service finds available jobs for the students. The success of a two-year comprehensive college can be measured by the number of students that find employment upon graduation. Our experience reveals that opportunities do exist for the student that properly prepares himself for that employment.

An advisory committee that has interested and concerned members is of tremendous help in planning programs, suggesting ways to improve programs and provide much assistance in the placement of students; both for the

experience and internship programs and for initial employment.

In the two-year terminal program, we feel it is vital that all students gain worthwhile experiences in their chosen area of interest. All of our students must complete a summer experience program. All of our graduating students must complete an internship program which is one quarter in length. We feel that the students must have gained the experience as a learning phase of the program and work as an intern as it prepares them for initial employment.

One area of interest to us has been why students enroll in the Agricultural Resources program since about two-thirds of the students are enrolled in it. To give us some answers we used an occupational questionnaire to gather information from the graduating sophomores. Some of the areas include:

A. Why they chose their area of study.

B. Why they chose this particular occupational objective.

C. The items they considered important in their selection of an occupation.

The study brought out the following: The students who have enrolled in this particular program have become more sure of their initial choice of an occupation. They were attracted to the occupation through the desire to "work out-of-doors" and to "work with nature." That efforts put forth by high school officials were of doubtful value in helping students make a choice of a career and/or occupation. It also showed us that opportunities for employment ranked high with the students' reasons for attending Shawnee College.

We can also assume from this study that students were not too sure of their choice of an occupation, but enrolled in a program that was interesting to them.

The last question was, "If you were starting your attendance at our college again, would you choose the same occupational area?" Ninety-seven percent said that they would. Obviously the majority of the students enrolled in Agricultural Resources are satisfied with the program.

Our philosophy at Shawnee College is to provide the student with a quality education and prepare the student for
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STUDENT INVOLVEMENT IN CHAPTER ACTIVITIES -- BOAC

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R. J. Weigand

revitalization and development of rural areas." It is for this reason that our nation is committed to working out a sound balance between rural and urban America through the Agricultural Act of 1970.

FFA members across the nation are mobilizing to meet this challenge. They are serious about their commitment and are providing action by participating in the FFA "Building Our American Communities" (BOAC) effort. The BOAC program is a total national effort to strengthen our communities and is designed to motivate students in the fundamentals of community development.

The purpose of the FFA Building Our American Communities Program is to (1) develop active, experienced and knowledgeable community leaders and citizens; (2) develop a rural-urban

balance by the creation of job opportunities, community services, and a better quality of living in rural communities; (3) improve the social and physical environment in the cities, towns, villages, and farm communities of rural America.

It is the major objective, ideally, to have 100 per cent involvement of chapter members in planning, understanding, and implementing various BOAC projects.

As an advisor I know it is nearly impossible to have 100 percent of the membership actively involved in a BOAC project. However, I think it is possible to have all of the members involved, when a chapter has more than one BOAC activity planned for the year. If I were to list possible BOAC projects it would consume a considerable amount of time.

One of the first steps taken in a chapter BOAC project is to establish a BOAC committee in which a chairman is selected to act as a liaison between the executive committee and the chapter members. This committee has the responsibility of meeting to determine community needs in order to establish priorities as to which projects the chapter should become involved with first.

Last year our chapter at Evansville sent our FFA officers to a leadership camp for four days where we appointed a BOAC Committee, and BOAC Chairman. We discussed various project ideas that we felt were of value and need to our community. Some of these projects have yet to be completed, however; they are scheduled to be completed by mid-June. Others are continuing projects in which we will be involved year after year.

BOAC projects which the Evansville FFA Chapter are working on or have completed are:

(1) A city welcome sign built on the outer limits of Evansville having the words "Evansville Welcomes You" engraved on it. This sign has initiated concern and support from four com-



Building and repairing recreational equipment for the school outdoor picnic area, introduced students to the fields of structural design.

munity organizations and other persons both in and out of our immediate community. As of this writing there have been more than 150 chapter members and adult citizens who have contributed help in some way to the success of this project. The structure has also consumed over 1000 man hours of work.

(2) An upstream plan, which was started by our city Jaycees, has allowed our chapter to offer support and become involved. Federal funds amounting to \$12,000 have been allocated for

(Concluded on page 70)



Students take an active role in helping others to help themselves by gathering grain crops to be donated to the Christian Rural Overseas Program "CROP."



The contribution of flowers to all the local churches in the city creates a feeling of being an active member of the community.

(Weigand — from page 69)

this project, which involves the cleaning up of Lake Leota in the city park, reinforcing, and rip-rapping of the upstream leading into this lake. One and one-half mile of upstream will be fenced off so that grazing cattle will not destroy the stream banks, causing damage to the stream. The chapter will help with this plan.

(3) An outdoor picnic area being established on the school grounds. Our chapter and the Earth Science Club are working together on this idea. This undertaking involved the clearing, clipping, and cleaning of school grounds; followed by planting of seedlings; construction of picnic tables; and the construction and painting of waste receptacles. The trees were obtained with the help of our county forester.

(4) A community service project involving the raking of leaves. Last fall we raked leaves for the senior citizens living in the community. This project was very beneficial to our community and was greatly appreciated by all. More than 6½ acres of lawn were cleared over a two day period. We found that this project was of great value to the FFA in Evansville because

it helped create an appreciative, pleasant, and improved image of us in the community.

(5) The carrying out of a weed control program on the school grounds and the FFA Corn Plot located on school grounds. This 18 acre plot was an asset to the community because it proved to be an important teaching aid to many farmers. Varieties of corn were grown from six different companies. We not only profited from the learning process of experimenting with various seeds and means of weed control; but realized financial profit which we applied toward the construction of the city welcome sign.

(6) Gathering of pledges from the community farmers of corn and other grain crops to be used in the underdeveloped countries to help people get started on their own. Our chapter worked with the state director of the Christian Rural Overseas Program "CROP" in carrying out this project. Over 350 bushels of grain were collected.

(7) The construction of a large flower bed in the center of the school campus. This bed was made on an incline in the shape of an "E" so that

people could see it as they drove up to the school. This spring the sophomore class, studying a unit in landscaping, will germinate and plant flowers on this plot, utilizing the school colors.

(8) The contribution of 3 cases of citrus fruit to our community nursing home during the Christmas holidays.

(9) Providing flowers to be placed on the altars of all the churches in the community during FFA Week. The people in the community greatly appreciated this contribution.

(10) The cleaning and picking up of debris in the city park last summer following the July 4th celebration sponsored by our community Jaycees and Lions Club.

The above mentioned BOAC Project ideas are just a few in which our chapter is involved. An active chapter can always find projects the FFA can take part in the year round. I truly believe the BOAC program, administered by the Future Farmers of America in cooperation with the U.S. Office of Education, Department of Health, Education, and Welfare, is in paralleled correlation with the FFA motto "learning to do, doing to learn, earning to live, living to serve." ◆◆◆

active part in the implementation of career education. In many cases they may have to assume the leadership role and serve as the change agents for career education.

This leadership can take many forms:

1. **Resource information.** Exemplary studies on career education are being conducted in many schools across the nation, but individual teachers should not wait for these to be finalized. Many of these projects are issuing interim reports which are valuable sources of ideas and information for elementary teachers. Vocational teachers can assist in interpreting and implementing the results of these projects.

2. **In-service workshops.** The vocational agriculture teacher in cooperation with other vocational teachers in the school system could promote an in-service workshop for elementary teachers to acquaint them with the occupations within the community.

3. **Review of books and films.** There are books and films available to elementary teachers which describe a great many of the most common occupations. Vocational teachers should

review these to be sure they do not give false impressions to the children, but portray the occupations as they exist today.

4. **Vocational students as teachers.** The development of special programs using the vocational students not only provides a valuable source of information to the elementary students but also provides valuable experiences for the vocational students themselves. In agriculture these programs can be presentations using slides, illustrations, and possibly animals for the elementary classroom or presentations made at the land laboratory or school farm.

5. **Learning centers.** A valuable tool in the elementary classroom is the learning center. Vocational teachers can give the elementary teachers assistance in creating learning centers which are related to career education.

Children must be given an opportunity to become aware of the great variety of careers available to them. Career education will provide this opportunity. Vocational teachers should actively support and assist in the implementation of career education into the elementary schools. ◆◆◆



John D. Todd

DO WE TEACH THE "DISADVANTAGED" DIFFERENTLY?

John D. Todd, Teacher Educator
The University of Tennessee,
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and
Richard H. Lambert
Former Teacher of Agriculture
Rogersville, Tennessee



R. H. Lambert

Do teachers of disadvantaged pupils in vocational education use the same teaching techniques and practices as teachers of other vocational pupils? A study was recently conducted in Tennessee to compare teaching techniques and educational practices which were being used by teachers identified as conducting special programs for the disadvantaged and other regular vocational teachers. The sample for the study comprised 60 secondary teachers randomly selected from a population of teachers specifically identified as conducting programs for disadvantaged pupils and 60 regular teachers randomly selected from all vocational fields. Comparisons were made between the two groups of teachers relative to their use of educational practices and teaching techniques. Comparisons were also made relative to the same variables according to vocational fields, years of experience in teaching, and professional training of the teachers comprising the sample for the study.

Findings

1. Teachers of programs for disadvantaged considered the following educational practices to be significantly less important in teaching than teachers in programs for regular pupils:
 - a. Working with pupils in out-of-school activities
 - b. Using the school norm in assigning grades
 - c. Requiring strict discipline in classrooms

Teachers of disadvantaged pupils considered involving pupils in setting the rules and regulations for the class to be significantly more important in teaching than teachers of regular vocational pupils.

2. Teaching techniques rated significantly lower by teachers of disadvantaged pupils were:
 - a. Using role playing
 - b. Asking factual questions
 - c. Making use of the chalkboard, overhead projector and other similar media
 - d. Reviewing tests after grading
 - e. Using pupils' experiences in class discussion
 - f. Requiring pupils to maintain a notebook
3. Teachers who had received credit in courses relative to teaching the disadvantaged considered the following practices significantly more important than teachers who had not taken these courses:
 - a. Counseling with pupils
 - b. Planning a course of study in consultation with other teachers
 - c. Developing teaching materials supplemental to texts or other references
 - d. Correlating mathematics, English, and science with vocational subjects
4. The responses to the use of many of the educational practices and teaching techniques by the teachers who had been enrolled in courses designed specifically for teaching dis-

advantaged pupils were significantly different from responses of teachers who had attended similar noncredit workshops. Many of these differences indicated that the teachers who had been enrolled in credit courses were using more desired practices and techniques.

5. Teachers who had taught disadvantaged pupils for more than one year responded significantly different to using specific techniques and practices than the less experienced teachers. Many of these differences were indicative that the more experienced teachers were using practical activities at the expense of more theoretical ones.

Conclusion

Even though the study was conducted across all vocational fields, there are implications for teaching disadvantaged pupils in vocational agriculture. Many vocational agriculture classes are comprised of disadvantaged pupils. It is very easy for teachers to use the same techniques and practices with all pupils regardless of their unique characteristics. Vocational agriculture teachers should receive training in teaching the "disadvantaged" since there are many practices and techniques better adapted for such pupils. Teachers of vocational agriculture should never be guilty of applying the same educational practices and teaching techniques to all of their pupils irrespective of needs, interests, abilities, or background. ◆◆◆

(Hiltebrand — from page 68)

a career. In order to do this, we attempt to start the student in the program he wants. We feel it is necessary to supply the needs of the student. In order to do this, it is necessary to provide expanding programs and to emphasize the ones that are needed the most. We have two basic kinds of students. Those that are enrolled in the day program and those in the evening.

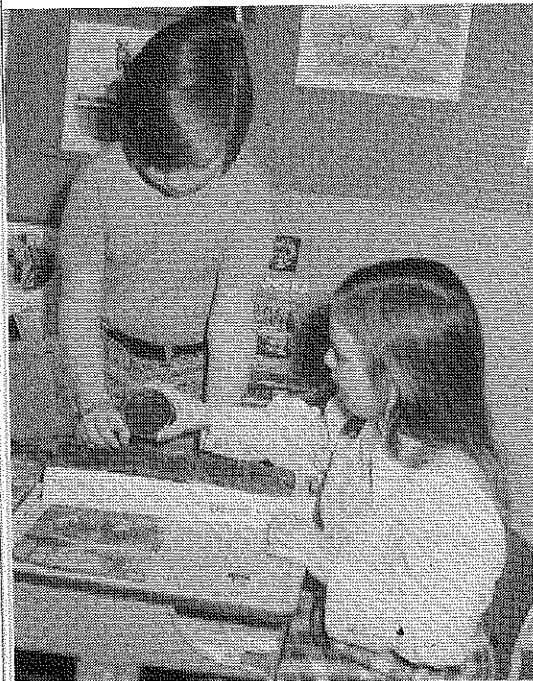
The adults and other genuinely interested persons make the evening enrollment. Constant readjustment of programs is necessary to provide the needs of the students enrolled in a comprehensive community college. We are experiencing a shift toward more career education. At the present time, over one-half of our students are enrolled in career programs.

One problem facing emerging career

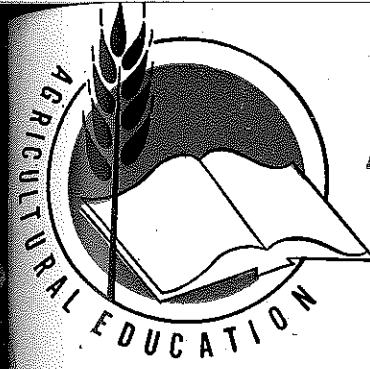
oriented comprehensive colleges is finding teachers with adequate background in education and experience. Persons who have a fundamental understanding of community college philosophy and understand the objectives of their college and will prepare themselves for this kind of education will find a truly rewarding career in teaching agriculture in the comprehensive community college. ◆◆◆

(Elson & Elson — from page 67)

the role, if not the duty, of the vocational teachers in a system to take an



Learning centers in the elementary classroom give the opportunity for hands-on experiences such as transplanting tomato plants.



Agricultural Education

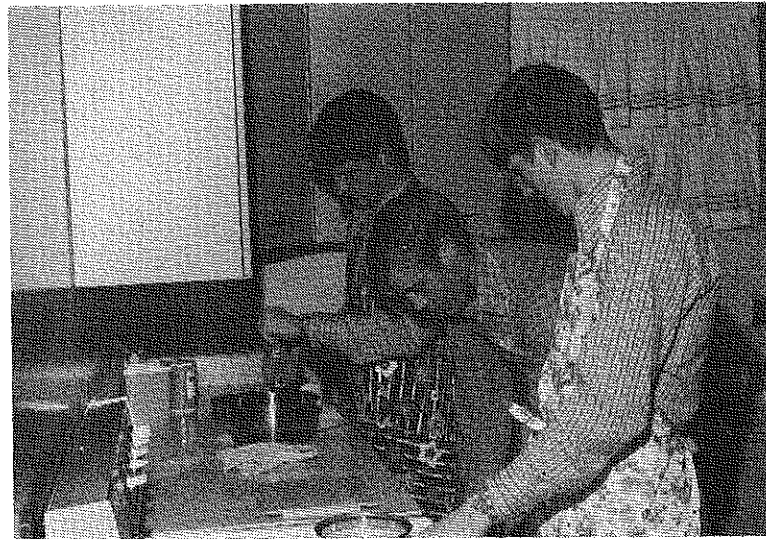
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BUILDING A TEAM EFFORT — Ralph Howard, second from right, Supervisor of Vocational Education in East Baton Rouge Parish, is shown discussing the program in Ornamental Horticulture in the Vocational Agriculture Department at Capitol High School in Baton Rouge with Ronald Bordelon, one of the Vocational Agriculture teachers in the school and some of the students. (Photo by Howard Brock.)

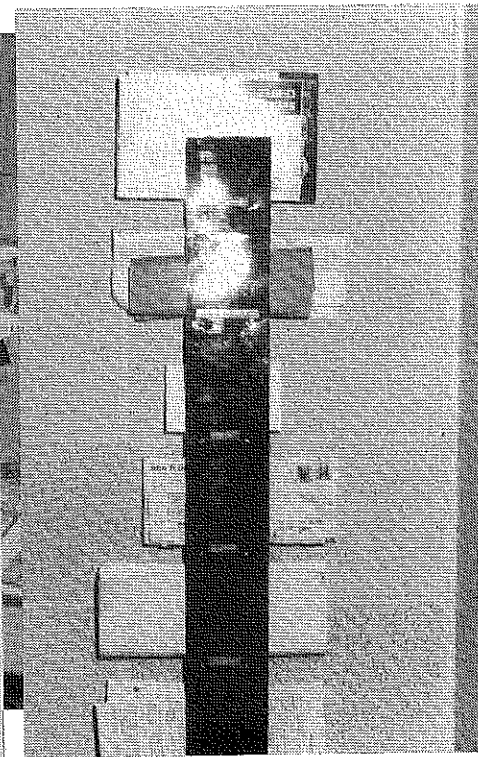


Articulated Plans with Other Teachers

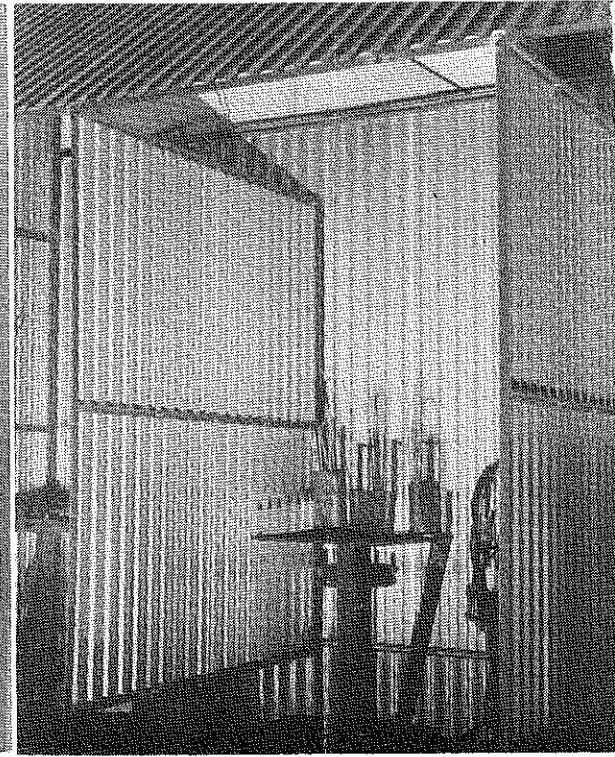
Stories in Pictures

by Richard Douglass

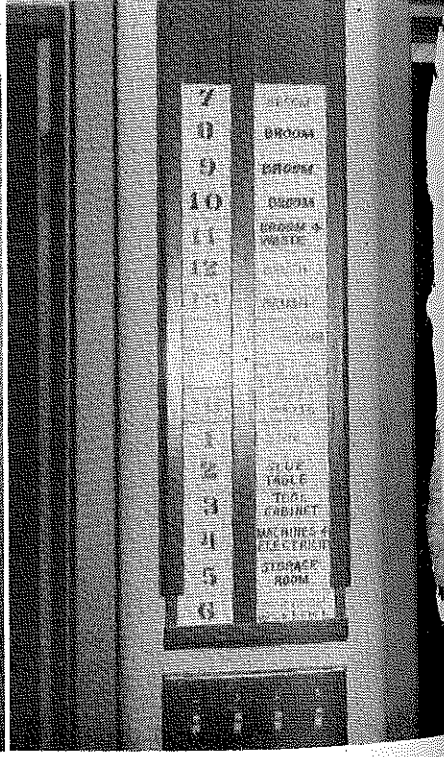
"GETTING READY FOR SCHOOL"



Convenient FFA Officer Mailboxes

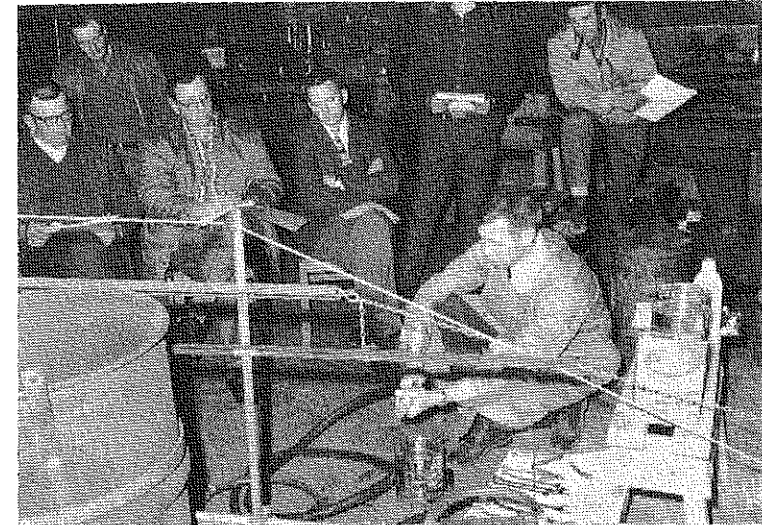


Safe, well ventilated Welding Booths



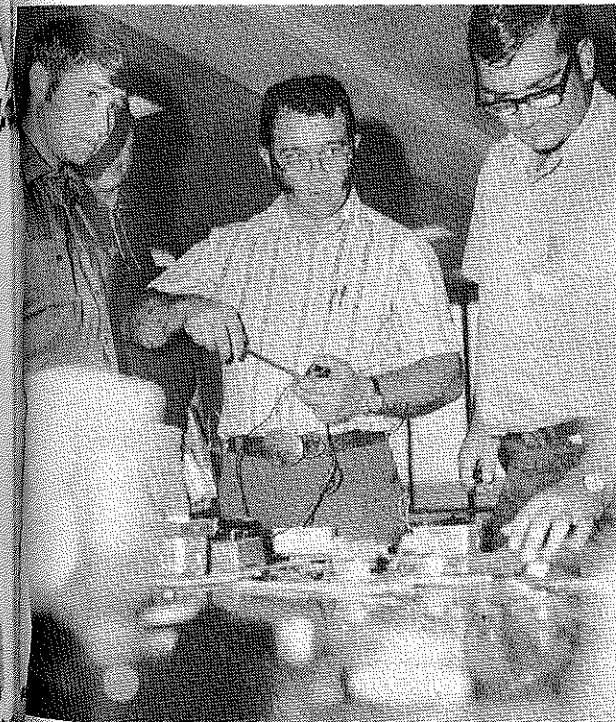
Efficient Shop Cleanup

UPGRADING



INSTRUCTION

ADULTS



APPLICATION



RECOGNITION

Theme — CAREER EDUCATION:
Are You Meeting The Adult's Needs In Your Community?

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